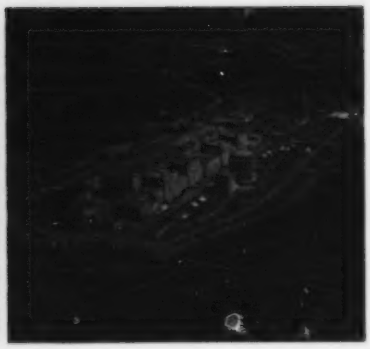

Sustainable Development Report 2004

ONTARIOPOWER GENERATION

Performance Highlights

Recognizing the relationship between good stewardship and good business, in 1999 OPG committed to becoming a sustainable development company. Since 1999, we have published an annual Sustainable Development Report which enables stakeholders to review our progress. OPG's sustainable development performance highlights for 2004 include:

- Nearly three-quarters of OPG's energy generation came from nuclear and hydroelectric sources, which were virtually free of emissions causing smog, acid rain and global warming.
- In preparation for the return-to-service of Pickering A, Unit 1 reactor, OPG completed nearly all preliminary work, and was authorized by the Ontario government to proceed with construction. When complete (anticipated mid-summer 2005), this unit will add 515 MW of virtually air emissions-free capacity to Ontario's electricity supply.
- Accident Severity Rate, a measure of the number of days lost due to injuries, was the best result the company has achieved since its inception in 1999. In 2004, OPG also received the Canadian Electricity Association's Bronze President's Award of Excellence for our top quartile safety performance in 2003.
- Regulatory compliance showed improvement, with 79 moderate infractions compared to 122 in 2003 (includes MISA infractions, Certificates of Approval issues and field orders).
- Total gross air fossil emissions (SO_2, NO, CO_2) were lower than in 2003. SO_2 emissions were approximately 25 per cent lower than in 2003, and the lowest for OPG and its predecessor company, Ontario Hydro, since 1995. NO emissions were 30 per cent lower in comparison with 2003, and a record low for the company based on records going back to 1970. Selective Catalytic Reduction technology at Nanticoke (two units) and Lambton (two units) operated for a full year, with an over 80 per cent removal rate of NO. CO_2 emissions were nearly 26 per cent lower than in 2003.
- OPG saved 107.4 GWh through energy efficiency initiatives, which was substantially better than OPG's internal target of 45 GWh.
- Sustainable Development Education Training was delivered to more than 500 new supervisors.
- Approximately 400,600 trees were planted, for a total of 1.86 million tree plantings by OPG since 2000. OPG's commitment to plant two million trees by 2007 will offset approximately one million tonnes of CO_2 during the lifetime of the trees.
- Received the Conservation Award of Excellence, from Conservation Halton, in recognition of our outstanding contribution to preservation in the Halton Watershed.
- Nanticoke GS was cited by Environment Canada and the US EPA for contributing to the Great Lakes Binational Toxics Strategy in recognition of the removal and destruction of over 750 tonnes of PCBs and PCB contaminated materials.
- The Town of Niagara-on-the-Lake presented Niagara Plant Group with a Heritage Commendation for the re-use and restoration of the Sir Adam Beck #1 Power House.
- Established two new employee networks to help make OPG a preferred place to work: a chapter of the international organization Women in Nuclear, and an on-line network for employees with disabilities and employees with children with special needs.

Cover Photos (clockwise from top left): Great Grey Owls are common to the Thunder Bay Generating Station; Darlington Generating Station; Nanticoke Generating Station; Wawaitin Generating Station

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Company Profile

Ontario Power Generation Inc. is an Ontario-based electricity generation company whose principal business is the generation and sale of electricity in Ontario and to interconnected markets. Our focus is on the efficient production and sale of electricity from our generation assets, while operating in a safe, open and environmentally responsible manner. In 2004, OPG generated 105 terawatt hours (TWh) of electricity.

OPG's electricity generating portfolio, as of December 31, 2004, had a total in-service capacity of 22,790 MW, which consisted of:

- three nuclear stations with a capacity of 6,103 MW (excludes Pickering A Units 2 and 3, which have a capacity of 1,030 MW and are currently laid up) and Pickering A, Unit 1, with a capacity of 515 MW, currently being returned to service;
- six fossil-fuelled stations with a capacity of 9,718 MW;
- 64 hydroelectric stations with a capacity of 6,962 MW;
- three wind power stations (which includes OPG's 50 per cent interest in the Huron Wind joint venture) with a capacity of 7 MW.

OPG co-owns one gas-fired station with ATCO Power Canada Ltd. and ATCO Resorts Ltd. In addition, OPG has leased two nuclear stations on a long-term basis to Bruce Power L.P.

- 3 nuclear stations
- 6 fossil-fuelled stations
- 64 hydroelectric stations
- 3 wind power stations (includes OPG's 50 per cent interest in the Huron Wind joint venture)

Message

from the President of OPG and the Vice President of Sustainable Development

OPG is pleased to bring you our sixth annual Sustainable Development Report, documenting our environmental, social and economic performance for the year 2004.

As a publicly-owned utility with major facilities across Ontario, OPG reports openly, extensively and regularly on its operations and the influence we have on the communities and environments where we operate. We take pride in being a highly transparent organization, and our Sustainable Development Report is an important and tangible manifestation of our corporate values.

OPG's commitment to the principles of sustainable development dates from our inception as a company in 1999. We are committed to minimizing our impact on the environment; operating our facilities safely, reliably and responsibly; being an engaged and productive member of our host communities; and delivering value to our shareholder, the Government of Ontario.

This report chronicles and measures key aspects of our environmental, social and economic performance in 2004.

Environmental Performance

In most areas, OPG's environmental performance in 2004 showed significant improvement over 2003. Areas where we improved include spills, regulatory compliance, gross fossil air emissions and radiation emissions. For example: minor spills decreased from 18 to 14; moderate impact spills from three to one; and there were no major spills for the second year in a row. Regulatory compliance (moderate infractions) was 35 per cent better than in 2003 and well below target.

In terms of meeting our 2004 environmental performance targets, we met or were better than target in several areas. In the area of energy efficiency, OPG saved 107.4 GWh in 2004. While this was less than the 339.8 GWh saved in 2003, it was well above our target of 45 GWh. Radiation emissions for Pickering and Darlington GS were 4.1 and 1.2 µSv, respectively, substantially below the limit of 1,000 µSv set by government. The 730 Gg target for ash and gypsum diversion from landfills was well exceeded with 866 Gg of such diversion.

Unfortunately, not all of our targets were met. We did not meet our 2004 targets with respect to: Category B Spills; nitric oxide emission rates for our coal-fired generating stations at Nanticoke, Lambton, Atikokan and Thunder Bay; and low and intermediate levels of radioactive waste generation.

Air Quality: OPG is committed to reducing air emissions at our fossil-fuelled facilities. In 2004, sulphur dioxide (SO_2) emissions were 25 per cent lower than in 2003, well below the regulation, and the lowest since 1995. Nitric Oxide (NO) emissions were 30 per cent lower than in 2003 - also below the regulation, and the lowest since data was first recorded in 1970. The reductions in emissions were due in part to OPG's installation of Selective Catalytic Reduction (SCR) technology on two units each at our Nanticoke and Lambton facilities in 2003. Another key factor was the restart of our Pickering A, Unit 4 reactor, which completed its first full year of operation in 2004. During the year, Unit 4 produced 3.2 TWh of electricity, virtually free of emissions contributing to smog, acid rain and global warming. Notably, this production avoided approximately 3,099 tonnes of NO, 13,780 tonnes of SO_2 and 3.2 million tonnes of carbon dioxide (CO_2) which would have been created if that 3.2 TWh of electricity had been generated by coal-fuelled stations.

Biodiversity: OPG partners with external conservation agencies and local municipalities to protect biodiversity and restore habitat on our properties and other sites across Ontario. These "beyond compliance" efforts represent an important contribution to Ontario's biodiversity conservation goals and its current focus on the development of an Ontario Biodiversity Strategy. Some of our more notable biodiversity initiatives undertaken in 2004 include:

- Planting approximately 400,600 trees, for a total of 1.86 million tree plantings by OPG since 2000. OPG's commitment to plant two million trees by 2007 will offset approximately one million tonnes of CO_2 during the lifetime of the trees.
- Biological surveys and management plans for the Welland River and Power Canal Lands, conducted by our Niagara Plant Group to identify endangered or threatened plant and wildlife species.
- The re-certification of our Pickering and Nanticoke Generating Stations by the Wildlife Habitat Council (WHC). Pickering GS was also one of only three finalists (out of over 100 re-certified sites) nominated for the WHC's Corporate Habitat of the Year Award.

Social Performance

OPG is an engaged and contributing participant in the communities where we operate – both at the corporate level and through the volunteer and charitable activities of our employees. In 2004, we helped support more than 600 local educational, environmental and community initiatives through our Corporate Citizenship Program. OPG employees donated generous amounts of time, energy and expertise through numerous acts of individual volunteerism. These activities included coaching amateur youth sports; youth mentoring in engineering, science, businesses and other disciplines; and participating as organizers, advisors and in other volunteer roles for local events and programs such as food banks, fund raising and cultural events.

OPG, its employees and pensioners also raised $1.8 million through our 2004 Charity Campaign to help support local charities and not-for-profit organizations across Ontario. These are just a few examples of our community involvement, which contributes to the strong support OPG has in many of the communities hosting its operations. Research conducted in 2004 showed, for example, that OPG's Darlington and Pickering nuclear stations had both improved their ratings among local community leaders. Darlington was rated 8.3 out of 10, compared to 8.1 in 2003; Pickering was rated 7.4 out of 10 in 2004, up from 6.9 in 2003.

Message

Safety remains a priority at OPG, and in 2004 we were especially pleased to achieve a record performance in our Accident Severity Rate (ASR) of 0.96 days lost due to injuries per 200,000 hours worked - the company's lowest ASR since its creation in 1999. We also achieved an All Injury Rate (AIR) of 1.53 injuries resulting in lost time or requiring medical treatment per 200,000 hours worked. In 2004, OPG received the Canadian Electricity Association's Bronze President's award of excellence for our top quartile safety performance in 2003.

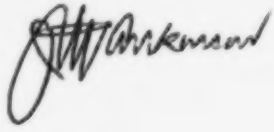
In November 2004, OPG's annual internal Sustainable Development Conference was held at the Darlington Information Centre to enhance employee understanding of and commitment to the principles of sustainable development. The conference complements our ongoing commitment to build a sustainable development culture at OPG. As part of this commitment, OPG requires new supervisors to take part in a company wide education program that explains the importance of sustainable development practices and how to encourage and implement these practices in the workplace. In 2004, more than 500 new supervisors participated in this program.

Economic Performance

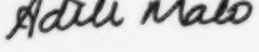
OPG creates economic value for the Province of Ontario that extends beyond the supply of reliable electricity generation. For example, in 2004 OPG made payments to the province in lieu of taxes, gross revenue charges (including water rental payments), dividends, interest on long term debt, market power mitigation agreement rebates, and other payments that totalled nearly $1,735 million.

Conclusion

At OPG, we view sustainable development as not only the right thing to do, but also as an important tool for business success. It is a critical part of our "licence to operate" in our plant communities. As a major producer of electricity and a major physical presence in many parts of Ontario, we have an obligation to go beyond the basics of our business and contribute in a meaningful way to the environmental, social and economic life of the broader community. The public expects this of us, and we expect it of ourselves. This report documents our progress in living up to this ideal. Going forward, we will build on this progress and we continue to be committed to doing better in the areas where we need to improve. We hope you find this report an open, informative and useful account of our sustainable development activities and our focus on remaining a sustainable development company.



Jim Hankinson
President and CEO



Adèle Malo
Vice President of Sustainable Development

Accountability
for Sustainable Development

Accountability for sustainable development at OPG rests with the President, who is accountable to the Board of Directors for making certain the company manages the environmental, social and economic aspects of its business in a manner consistent with OPG's Sustainable Development Policy.

The Vice President of Sustainable Development, Adèle Malo, ensures that the Board of Directors remains well apprised of provincial, national and international developments in the area of sustainable development that are relevant to OPG.

Site environmental and community advisors, working in collaboration with the corporate sustainable development group, lead a variety of stewardship initiatives (described throughout this report) to implement sustainable development activities across all levels of OPG's operations.

Environmental Performance

At OPG, we strive to meet our obligation to produce power in a manner that reflects our commitment to the environmental dimension of sustainable development.

Key Environmental Performance Targets

OPG must comply with literally hundreds of environmental laws, regulations, bylaws and requirements contained in operating permits and Certificates of Approval. Our company regards regulatory compliance as the baseline for progress towards sustainable development, and establishes voluntary internal environmental targets to help ensure that our performance continues to improve.

Accordingly, each year OPG sets key targets for improving environmental performance, and these targets are tracked and managed through the Environmental Management System (EMS). These efforts are reinforced by an Annual Incentive Plan that links a portion of management's compensation to meeting or surpassing established environmental targets.

In 2004, OPG's success in meeting targets established in the previous year was mixed (see Table 1). Specifically, performance targets in the area of regulatory compliance, energy efficiency, critical group dose and the diversion of ash and gypsum from landfill were met or surpassed.

With respect to spills, a single Class B spill exceeded OPG's target of zero.

Air emission performance was good in 2004. However, four fossil-fuelled generating facilities had NO emission rates that were higher than our voluntary, internal targets (for detailed explanation see Nitrogen Oxides and Sulphur Dioxide Emissions).

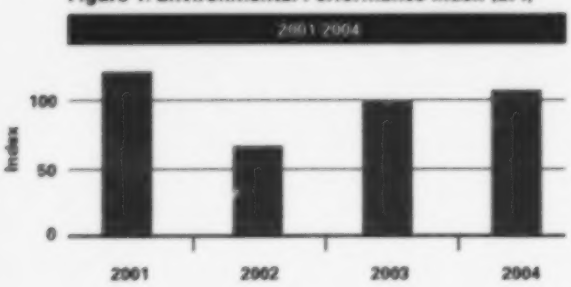
The annual target for Low and Intermediate Level Radioactive Waste (LILRW - 4,210 m^3 target) was exceeded (4,651 m^3 actual) primarily due to additional forced outages at Pickering GS and Darlington GS.

Table 1: Corporate Environmental Performance Targets (2004)
(All targets are voluntary except where otherwise specified)

Category	2004 Target	2004 Year-End	Target Met
Spills[1]	Major (A) = 0 Moderate (B) = 0 Minor (C) ≤ 24	0 1 14	Yes No Yes
Regulatory Compliance	Major Infractions[2] = 0 Moderate Infractions[3] ≤ 122 Minor Infractions	0 79 58	Yes Yes No Target
Energy Efficiency	45 GWh Saved (EP - 35; Nuclear - 10)	107.4	Yes
Air Emissions	NO ≤ 25 net Gg[4] SO_2 ≤ 153.5 net Gg[4] Total Acid gas = 215 Gg gross[4] NO rate (Gg/TWh-delivered)[5] CO_2 (Tg)	25.94 gross 116.91 gross 142.86 0.95 27.1 gross	Yes Yes Yes Partial[6] No Target
Critical Group Dose	Pickering ≤ 10 µSv Darlington ≤ 7.5 µSv	4.1 1.2	Yes Yes
Low and Intermediate Level Radioactive Waste	≤ 4,210 m^3 (~338 m^3/month)[7]	4,651 m^3	No
Ash and Gypsum Diverted from Landfill	≥ 730 Gg	805.8 Gg	Yes

(1) OPG ranks the severity of spills according to guidelines set by the company's Spills Severity Rating Procedure, which mirrors provincial Ministry of the Environment guidelines.
(2) Major infractions are defined as Director's Orders, charges and convictions.
(3) Moderate infractions include Municipal Industrial Strategy for Abatement (MISA) and Certificate of Approval violations and provincial officers' orders.
(4) The use of emission reduction allowances and credits were used to meet net emission reduction targets for NO. Regulatory limit O.Reg.397/01 limits OPG's annual net emissions to 25 Gg for NO and 153.5 Gg for SO_2, with gross emissions capped at 46.6 Gg for NO and 108.9 Gg for SO_2. O.Reg.153/99 limits OPG's total gross SO_2 emissions to 175 Gg and the total acid gas emissions to 215 Gg.
(5) NO emission rate targets are based on "delivered energy". Delivered energy is defined as "gross energy output from a generating unit, less unit service (energy supplied by and consumed by the unit), while connected to the electricity grid". The NO emission rate (Gg/TWh-delivered) is the total of all fossil station NO emissions divided by the total delivered energy from all fossil units.
(6) NO rate targets vary by generating unit. Several NO target rates were exceeded due to extended minimum and low load operation.
(7) OPG performance target includes Types 1, 2 and 3 waste.

Figure 1: Environmental Performance Index (EPI)



In 2001, OPG began calculating an annual Environmental Performance Index (EPI) to assess the company's overall environmental track record (see Figure 1). The EPI is a weighted index that focuses on performance against quantitative voluntary targets set for spills, regulatory compliance, energy efficiency, radiation emissions and waste management. The scoring system ranges from 0 to 150, with higher scores reflecting better performance. A score of 100 suggests that target performance was achieved, scores greater than 100 indicate high levels of environmental performance, and scores less than 100 suggest less favourable performance.

In 2004, at OPG we were pleased that our EPI was greater than 100, and that for the third year in a row the EPI improved.

OPG's ISO 14001 Environmental Management System (EMS) helps the company to ensure that its environmental policies and programs are managed, implemented, checked and reviewed within a framework of continual improvement.

In 1999, OPG achieved ISO 14001 certification for its Corporate EMS, and all of its generating facilities, with the exception of Evergreen Energy, which was certified in 2000.

In 2004, through an external auditing process, OPG retained ISO 14001 certification for its Corporate EMS and all of its generating facilities.

Spills

OPG categorizes spills according to their impact on the environment: Category A (major impact), Category B (moderate impact) and Category C (minor or no impact). These guidelines - established by the company's Corporate Spill Severity Rating Procedure - mirror the provincial Ministry of the Environment (MOE) guidelines.

OPG experienced no Category A spills in 2004. One Category B spill was reported in the nuclear division by Pickering A GS. Accordingly, the performance target for the year of zero Category B spills was not achieved. There were 14 Category C spills in 2004 (three in the nuclear division; six hydroelectric; five fossil), which was substantially below the 2004 target of ≤ 24 spills.

OPG continues to undertake an assessment of spills control performance across plants to determine if there are common causal factors, and by extension, initiatives that may be communicated across the company to limit future spills.

Regulatory Compliance

OPG's "licence to operate" is subject to compliance with requirements and conditions contained in statutes, regulations, bylaws, operating permits and Certificates of Approval. In 2004, OPG had no major infractions (Director's Orders, charges or convictions), and had 79 moderate infractions (which was 35 per cent lower than in 2003).

Environmental Performance

Twenty-five of the 79 moderate infractions in 2004 involved effluent limit exceedances under provincial Municipal Industrial Strategy for Abatement (MISA) regulations or site-specific Certificates of Approval, compared with 36 exceedances in 2003, 38 in 2002, 13 in 2001 and 52 in 2000. The breakdown of the remaining moderate infractions was: 50 Certificates of Approval, one Continuous Emission Monitor, two Water Management Plan, and one Provincial Officer's Order.

Reducing infractions is a priority that OPG is addressing through awareness training, better procedures and preventive maintenance. In 2005, our goal will be to again realize zero major infractions and to reduce MISA and Certificate of Approval infractions from 2004 levels.

Energy Efficiency

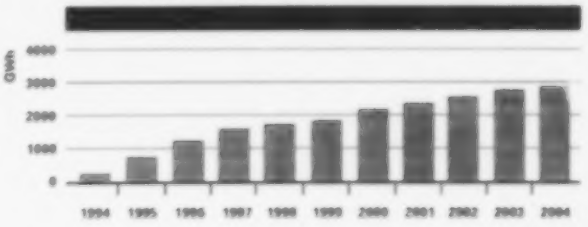
In 2004, OPG achieved internal energy savings of 107.4 GWh (equal to approximately two per cent of its internal energy use), which exceeded its self-imposed energy efficiency target of 45 GWh. This result is consistent with the success of OPG's long-term energy efficiency commitment and performance, which was initiated in 1994 by its predecessor company, Ontario Hydro (see Figure 2).

Over the period 1994 - 2004, OPG's annualized energy savings increased by 2,890 GWh, which resulted in monetary savings of $124 million per year (@ 4.3 cents per kilowatt-hour) and annual emission savings of 2.9 million tonnes of CO_2.

An example of an initiative that improved OPG's energy efficiency during 2004 was the turbine upgrades for Nanticoke GS Unit 7, that increased its Maximum Continuous Rating from 475 MW to 495 MW.

As part of OPG's commitment to energy efficiency, and by way of its membership in the not-for-profit Canadian Energy Efficiency Alliance (www.energyefficiency.org), OPG is a sponsor of the On-Line Energy Efficiency Centre. This centre offers state-of-the-art advice to help industry trim energy costs.

Figure 2: Cumulative Annualized Internal Energy Savings, 1994 - 2004



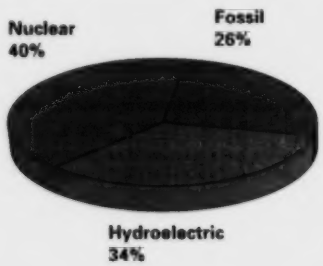
Air

Generation Mix

During 2004, over 70 per cent of OPG's electricity production was derived from hydroelectric and nuclear sources (see Figure 3).

Six fossil-fuelled stations produced the balance of OPG's power. Five of these stations use coal as their primary source of energy and one is dual-fuelled by oil and natural gas. Fossil stations have the advantage of being capable of responding on short notice to peaks in consumer demand for electricity.

Figure 3: OPG's Generation Mix (2004)



Selective Catalytic Reduction (SCR) units at Lambton GS and Nanticoke GS function by injecting ammonia into flue gases containing NO. The gases mix in the presence of a catalyst in a reactor, and produce harmless nitrogen and water, which are released to the atmosphere.

Nitric Oxide (NO) and Sulphur Dioxide (SO_2) Emissions

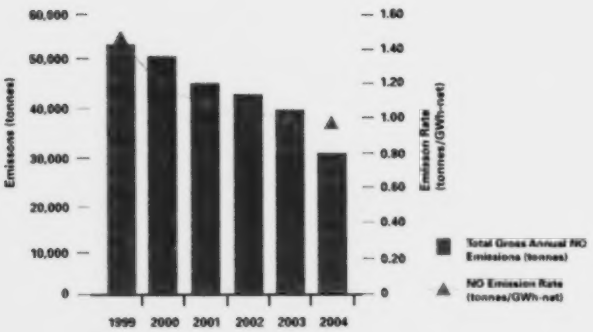
Air emissions released from a coal fuel source include nitric oxide (NO), sulphur dioxide (SO_2) and carbon dioxide (CO_2). Other contaminants, released in lesser amounts, are documented in Appendix B.

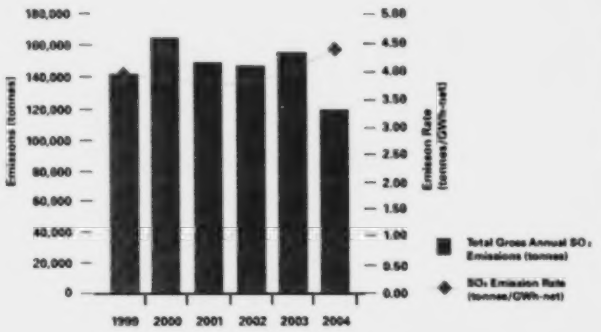
NO and SO_2, known as acid gases, are largely responsible for the formation of acid precipitation that impacts aquatic and terrestrial ecosystems, and structural material such as limestone. These gases are also key components in the formation of ground-level ozone and smog. CO_2 is a greenhouse gas linked to climate change.

OPG continues to make efforts to address acid gas emissions from its fossil-fuelled plants. For example, two Flue Gas Desulphurization scrubbers at Lambton GS continue to remove 95 per cent of SO_2 from flue gas. In 2004, total emissions of acid gas amounted to 143,000 tonnes, which was approximately 27 per cent lower than 2003 acid gas emissions (see Figure 4).

A combination of factors led to the decline of total acid gas emissions from OPG generating facilities in 2004. An unseasonably wet and cool summer, higher than forecast generation from hydroelectric facilities and the return to service of

Figure 4: NO and SO_2 Emissions and Emission Rates for OPG Fossil Generation (1999 – 2004)





Pickering A, Unit 4, collectively decreased the need for generation from fossil stations. Also, 2004 marked the first full year of operation for OPG's Selective Catalytic Reduction (SCR) units, which further reduced NO emissions.

OPG's 2004 average fossil NO emission rate of 0.95 Gg/TWh-net was marginally better than in 2003, however the company did not meet the internal targets for four of its generating stations, as described:

- Nanticoke GS, Units 1-6 - The target was narrowly missed. Once Unit 5 (the over fire air unit) was back in-service, the rate improved.
- Lambton GS, Units 1-2 - The rate was higher than target as a result of increased two-shifting and low load operation on Units 1 and 2 during March through December.
- Atikokan GS - A high rate was due to extended minimum and low load operation.
- Thunder Bay GS - A high rate was due to extended minimum and low load operation.

The 2004 average fossil SO_2 emission rate of 4.33 Gg/TWh exceeded the 2003 rate of 4.04 Gg/TWh. The higher SO_2 emission rate was primarily due to the optimization of fuel blends and purchases (See Figure 4).

Nanticoke Environmental Committee is an ambient air monitoring network consisting of OPG (Nanticoke GS), Stelco Lake Erie and Imperial Oil. Nanticoke GS participated in an annual meeting with the community to present and discuss the results of the air quality monitoring program. No complaints on air issues were received from the attendees.

Greenhouse Gases (GHG)

The primary greenhouse gas that results from OPG's operations is CO_2. In 2004, total gross CO_2 emissions were 27.1 million tonnes, an amount substantially below gross annual emission levels reported by OPG since inception (see Figure 5). Lower GHG emissions were largely attributable to the following activities:

- return to service of Pickering A, Unit 4 reactor, which completed its first full year of operation in 2004. During the

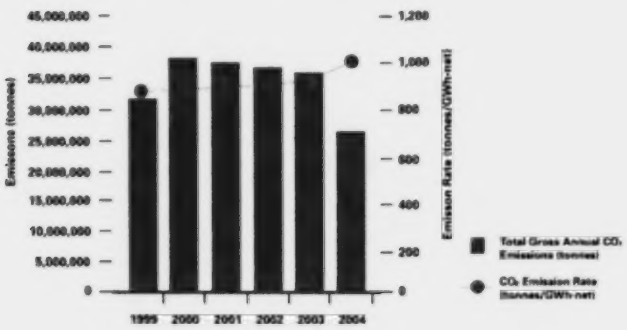
Air

Atmospheric Sciences

In 2002, a five year OPG/NSERC Industrial Research Chair and Centre for Atmospheric Sciences was established at the University of Waterloo. The Research Chair addresses two important current problems in atmospheric science: urban and regional air pollution and the effects of aerosols and atmospheric particulate matter on climate change. As of 2004, the centre was fully staffed and research commenced. The primary areas of research that began in 2004, and that remain ongoing, include:

- regional modelling of fine particulate matter, ozone and mercury, focusing on the Great Lakes airshed.
- development of accurate emission inventories including both natural and man-made emission sources.
- modelling of the sources and deposition of mercury.
- establishment of a laboratory to study the effects of atmospheric aerosols and particulate matter on cloud formation and the transmittance of light through the atmosphere which can affect climate and weather stability.

Figure 5: CO_2 Emissions and CO_2 Emissions Rates for OPG Fossil Generation (1999 – 2004)



year, Unit 4 produced 3.2 TWh of electricity, mostly free of emissions contributing to global warming. The contribution of Unit 4 avoided 3,193,000 tonnes of CO_2 production.

- OPG's energy efficiency program achieved 107.4 GWh of electricity savings, thereby reducing CO_2 emissions by almost 108,000 tonnes.

The CO_2 emission rate from the fossil fleet increased from 880 Gg/TWh-net in 1999 to approximately 1,000 Gg/TWh-net in 2004. This higher rate was partially attributable to slight decreases in fuel conversion efficiency over a five year period which, in turn, was related to changes in the dispatch of units in order to meet electricity demand.

Since 1995, OPG and its predecessor company, Ontario Hydro, operated under a greenhouse gas emissions voluntary commitment to stabilize net GHG emissions at 1990 levels by 2000. To meet its year 2000 voluntary target, OPG reduced its net CO_2 emissions by 12.6 million tonnes through internal energy efficiency projects and through the purchase of emission reduction credits from third parties. To meet the voluntary limit of 26 million tonnes of CO_2 in 2001, 2002, 2003 and 2004, OPG would

need to acquire CO_2 emission reduction credits of 11.1, 10.7, 10.5 and 1.1 million tonnes respectively. In that effort, OPG has purchased 10.7 million tonnes of CO_2 emission reduction credits.

Beginning in 2003 and continuing into 2004, OPG subjected its voluntary GHG emission target to review, prompted by the proposed federal government's Climate Change Plan, ratification of the Kyoto Protocol, and the Province's plans to close Ontario's coal-fuelled generating stations. Given these factors, and in particular recognizing that closing the coal-fuelled plants would essentially lower OPG's GHG emissions profile to zero beyond 2007, OPG suspended the purchase of GHG emission reduction credits and has subsequently eliminated the voluntary commitment.

OPG will continue to make efforts to reduce GHG emissions through our commitment to nuclear and hydropower electricity generation, and to promote internal energy efficiency and a carbon sequestration program through strategic tree planting.

OPG's Carbon Sequestration and Biodiversity Management (CSBM) program links the need to sequester carbon as an offset to greenhouse gas emissions from our fossil plants, with habitat restoration for forest wildlife that are at risk in the fragmented landscapes of southern Ontario. Since the spring of 2000, OPG and its conservation partners have planted in excess of 1.86 million native trees and shrubs matched to site conditions, on more than 900 hectares of land. In 2004, and working with various partners, OPG planted in excess of 400,600 trees. OPG estimates that its total tree planting efforts, which will encompass approximately two million trees by 2007, will trap and offset about 1,000,000 tonnes of CO_2 over the lifetime of the trees. The program is unique in linking the GHG emissions problem to a biodiversity solution, by working with nature to help sequester CO_2 emissions.

A reduction in lawn cutting at generating sites, such as Nanticoke GS, helps alleviate GHG emissions otherwise created by lawn cutting equipment. An additional benefit of reduced lawn cutting has been the re-colonization of wild flowers on sites.

OPG continues to support international efforts to address climate change through its work with the e7, which is an organization of ten utility companies from around the world, dedicated to sustainable development projects and human capacity building activities in developing nations. In 2004, OPG served as Chair and host to e7 strategic planning sessions held in Niagara-on-the-Lake, Ontario. One of e7's major initiatives is sponsorship of a scholarship program for students pursuing advanced studies in sustainable energy development. Students from developing countries and economies in transition who plan to undertake studies at the Masters level or Post-Doctoral level in areas directly related to sustainable energy development are eligible to apply for a scholarship.

OPG supports research into carbon sequestration, through alliances with the following organizations:

- **BIOCAP Canada**: a Canadian research organization dedicated to finding biology-based solutions to the challenges of climate change.
- **International Energy Agency (IEA)**: research programs, under the direction of the Greenhouse Gas Research & Development and Clean Coal Centre, address GHG reduction, capture and sequestration.
- **University of Waterloo**: programs focus on developing a model on carbon capture and sequestration in southern Ontario.

Power Within Achievement Awards

OPG's Power Within Achievement Awards pay tribute to the outstanding accomplishments of its skilled, determined and committed employees in seven categories. At the 2004 Awards Ceremony, 57 employees were honoured for achievements ranging from the individual successes of committed leaders to the impressive performance of entire production teams. These award winners truly embody the company's vision of excellence.

The Environment Award recognizes employees who make an extraordinary contribution to a more sustainable energy future or show outstanding commitment to the protection of the environment, while meeting OPG's business needs. The 2004 Environment Award winner was Irv Benovitch of OPG Nuclear. He received this award for developing a new standard for calculating Derived Release Limits for OPG Nuclear Sites, which was approved by our regulator to replace the previous method used. This advance allows nuclear facilities to calculate release limits and more realistic dose impacts from operations. Irv's work positions OPG as a leader in the field of radiological environmental input, and has been adopted by other CANDU utilities.

Radiation

The operation and maintenance of OPG's nuclear reactors releases low levels of radioactivity. The design of the nuclear plants minimizes these releases through, for example, multiple passive barriers including a one-kilometre exclusion zone separating the public from the reactor building. Air dryers are used to remove tritium from the air, and filters capture particulate matter and iodine. Operating procedures also protect the health of employees and the public.

"Critical Group Dose" is used to measure radiation exposure to members of the public who live in close proximity to nuclear plants. Critical Group Dose calculations focus on the public's actual eating and drinking habits as obtained from survey data. The survey includes six age groups: three month old nursing infant, one year old infant, children aged five, 10 and 15 years, and adult. Critical Group Dose is measured in microsieverts (μSv), an international unit. Prior to 2003, the exposure of the public to radiation was calculated as "Dose to Public", which was not based on a direct sampling of the population living close to a nuclear plant, but rather on the theoretical dose a person might receive if they lived just outside a station boundary 24 hours per day, drank local water and milk, and ate local fish and produce. The Critical Group Dose is considered a more realistic calculation of radiation exposure than Dose to Public.

In 2004, Critical Group Dose levels for Pickering and Darlington GS were 4.1 and 1.2 μSv, respectively, substantially below the limit of 1,000 μSv set by government. Notably, from the perspective of benchmarking, the average Canadian receives about 2,000 μSv per year from natural sources such as cosmic rays and radon in the soil.

Land

Low and Intermediate Level Radioactive Waste (LILRW)

The annual target for Low and Intermediate Level Radioactive Waste (LILRW - 4,210 m^3) was exceeded (4,651 m^3 actual) due in part to forced outages at Pickering GS and Darlington GS. Additionally, the legacy of a blast boiler clean project during a Darlington outage, as well as delays in implementing the low level radioactive waste reduction plan (including the use of re-washable protective wear) drove the production of LILRW higher than target.

Changes to the LILRW cost structure are being implemented in 2005, to create a cost driver to improve production performance. Waste volumes above target will incur a charge against the sites' OM&A accounts.

Ash and Gypsum Diverted from Landfill

OPG continues to develop commercial markets for its major by-products of fossil fuel combustion: coal fly ash, coal bottom ash and gypsum (from flue gas desulphurization). Fly ash is used for the manufacture of cement and concrete and in controlled low strength material or flowable fill applications. Bottom ash is used as granular fill in road beds and gypsum is used for the manufacture of wallboard. Coal fly ash is also used in engineered landfills. We are exploring the potential for coal fly ash to be used as filler in paint and plastics, and as a soil conditioner.

In 2004, OPG utilized 91 per cent of these by-products, or 865,624 tonnes. This result reflects a substantial increase in by-product utilization over the last three years. To illustrate, the utilization of by-products in the year 2000 was 42 per cent. Solid combustion by-products not used are sent to a recoverable landfill and may be subsequently used if markets develop.

PCB Management

While there is no regulatory requirement to eliminate PCBs, OPG's policy on PCB management targets the phase-out and destruction of 81 per cent (based on 1994 inventories) of in-storage PCB waste and high-level in-service PCBs by 2005, and the remainder by 2015.

OPG is on course to eliminate all of its in-storage PCB waste and in-service high-level PCBs by the end of 2007.

Effects Monitoring

An important component of OPG's management process is effects monitoring. It provides important feedback information to determine if management actions are achieving conservation objectives. It also provides the opportunity to revise and adapt management approaches to ensure that conservation objectives are achieved in the spirit of continual improvement. Examples include updating ecological land classification and surveys of breeding birds and amphibians at Darlington GS, and assessment of brook trout populations in Wesleyville Creek, Wesleyville Industrial Park, near Port Hope.

OPG, and its predecessor company Ontario Hydro, have reduced the inventory of in-service PCBs and PCB waste by approximately 72 per cent since 1994. In 2004, OPG shipped approximately 173 tonnes of high and low level PCB waste for destruction. As of December 31, 2004, OPG's PCB waste inventory was 1,152 tonnes, as compared to 4,123 tonnes in 1994.

Environment Canada and the US Environmental Protection Agency have cited Nanticoke GS for making a significant contribution to the Great Lakes Binational Toxics Strategy. The work for which Nanticoke was recognized involved the removal from service and destruction of over 750 tonnes of PCB and PCB contaminated materials such as static exciter transformers. The work was conducted without incident and was completed on budget and one year ahead of schedule. Except for small un-inventoried sources such as old lighting ballasts, Nanticoke GS is the first OPG site to be recognized as "PCB free".

Mercury Monitoring and Reporting

In support of the development of Canada-wide standards for mercury emissions from the electric power generation sector, OPG has worked in conjunction with other Canadian utilities to implement a voluntary two-year mercury monitoring and reporting program. The program focuses on sampling, analysis and reporting of coal and ash for mercury content and testing for mercury in flue gas. The program was nearing completion in 2004. A mercury standard resulting from the program is expected in 2005.

The emission control technologies used to reduce SO_2 emissions (flue gas desulphurization at Lambton GS) and NO_x emissions (Selective Catalytic Reduction at Lambton GS and Nanticoke GS) are showing promise in removing and/or enhancing the removal of mercury as well. Testing is being done to assess the concomitant benefits of these technologies in removing mercury.

Thunder Bay Residential Fluorescent Tube (Mercury) Collection Sponsorship: One of the environmental projects that Thunder Bay GS continued to support in 2004 was Ecosuperior's Community Residential Fluorescent Tube collection program. Ecosuperior is Thunder Bay's Green Communities Organization.

The project began as a pilot initiative supported by OPG. For one month in 2003, residents of Thunder Bay were invited to bring their used fluorescent tubes to the Ecosuperior offices for collection and subsequent environmentally responsible recycling. Each fluorescent tube collected contained about 30 milligrams of mercury which, through recycling, was diverted from landfills. All the other metal, glass and chemical compounds in the tubes was also recycled.

Residents in Thunder Bay and Northwestern Ontario are able to recycle their used fluorescent light tubes through The Ecosuperior OPG Fluorescent Light Recycling Program launched in 2002.

The 2003 pilot recycling program was extremely successful, with over 2,000 fluorescent tubes collected in one month. Consequently, Ecosuperior was encouraged to establish an ongoing residential tube collection program in 2004, and once again OPG provided support.

This community recycling program continues to be very successful. Influenced by the success of the community recycling program, Thunder Bay GS established an in-house initiative that resulted in recycling 3,200 tubes from its operations during 2003/04.

Land Assessment and Remediation

In response to a Director's Order from the Ontario Ministry of the Environment, OPG introduced a program in 1997 to assess and remediate historical contamination on properties occupied by its generating facilities. Accordingly, OPG ranked the sites as high, medium and low in reference to the need for remediation. OPG's first Site Assessment Plan, filed with the Ministry in 1998 and each year thereafter, identified 50 priority sites with known or potential contamination. The contaminants of concern were fuel oil, transformer oil, waste lubricants and tritium. OPG has now completed all of the site assessments required by the Director's Order, and the Ministry of the Environment has notified us that the order has been closed out. Assessment of medium and low priority sites continues under OPG's voluntary site assessment program.

Other Contaminants

Appendix B includes OPG's National Pollutant Release Inventory (NPRI) emissions to air, water and land for 2003. Based on this data, compiled by Environment Canada, no OPG plant is ranked among the 100 facilities in Ontario which release the largest amounts of known carcinogens to air or water.

Biodiversity and Habitat Stewardship

The conservation of biological diversity is an integral part of OPG's sustainable development efforts. Biodiversity, as a term, refers to the variety of life on earth. It includes the diversity of ecosystems, the diversity of species within those ecosystems and the genetic diversity within species. It is an inclusive concept, referring to the ecosphere and all of its ecosystems.

Unsustainable human activity is the root cause of ecosystem stress and biodiversity losses worldwide. The challenge for society, and for its businesses and industries, is to develop business practices that do not materially impact ecosystems.

Intense land-use pressures in the settled landscapes of southern Ontario pose great threats to ecosystems. The generation of electricity can contribute to ecosystem stress through both direct and indirect pathways. Populations of some species can be adversely affected through the loss and fragmentation of habitat, and in the

case of hydroelectric generation, through the modification of flow regimes and the creation of barriers (dams). Ecosystems, and the species they support, can also be indirectly affected through various pollution pathways arising from air and water emissions associated with the generation of electricity. OPG's extensive pollution control efforts and habitat restoration programs will help to minimize these direct and indirect adverse effects.

In recognition of potential impacts, OPG has implemented a progressive Biodiversity Policy that is responsive to the Convention on Biological Diversity, Canada's *Species at Risk Act*, the *Ontario Endangered Species Act* and the Ontario Biodiversity Strategy. The protection of known sites with significant natural heritage values represents a priority action for OPG. Where this is not feasible, we will restore areas that are recoverable and as a last resort, replace habitat in kind where economically and ecologically practical.

OPG's award-winning biodiversity program includes the undertaking of biodiversity assessments and management plans at each of our major plants and land-holdings. In virtually all cases, we try to ensure that local conservation actions are responsive to broader regional conservation needs and priorities. Partnering with external conservation agencies and local municipalities also helps to ensure a coordinated and enduring approach to habitat stewardship and conservation.

Carbon Sequestration Linked to Biodiversity: OPG's biodiversity management effort also involves an off-site component, our Carbon Sequestration and Biodiversity Management (CSBM) program. This tree planting program links the need to sequester carbon, as an offset to greenhouse gas emissions from our fossil plants, with habitat restoration for forest wildlife that are at risk in the highly fragmented landscapes of southern Ontario. Since the spring of 2000, OPG and its conservation partners have planted in excess of 1.86 million native trees and shrubs matched to site conditions, on more than 900 hectares of land, addressing a variety of ecological restoration priorities across the southern Ontario landscape. In 2004, OPG planted in excess of 400,600 trees through its various partners.

The program focuses on restoring southern Ontario forest habitat which has lost greater than 80 per cent of its original forest cover. Restoration sites are strategically chosen based upon "big picture" conservation needs. Plantings are targeted to expand key "core" forested areas and connect woodland patches to help promote the recovery of declining area-sensitive wildlife that are at risk because of the loss and fragmentation of habitat. Management plans have been developed for each OPG site with explicit objectives linked to regional biodiversity conservation priorities. OPG represents a significant player in the restoration of forest habitat in southern Ontario.

OPG estimates that its total tree planting effort, to plant two million trees by 2007, will trap and offset about 1,000,000 tonnes of carbon dioxide over the lifetime of those trees, helping to mitigate global warming. The program is unique in linking a greenhouse gas (GHG) emissions problem to a biodiversity solution, by working with nature to help sequester some of our CO_2 emissions. These same plantings not only address biodiversity conservation needs through the provision of native habitat, but they also provide other important ecosystem services by reducing erosion, enhancing soil structure, recycling of nutrients and enhancing stream and air quality.

In 2004, OPG received the Conservation Award of Excellence from Conservation Halton, in recognition of our

outstanding contribution to conservation in the Halton Watershed.

On-Site Management Action: OPG's habitat protection and restoration efforts represent an important contribution to the province's biodiversity conservation efforts and are both consistent with and complementary to Ontario's Biodiversity Strategy. That strategy recognizes that all levels of government, non-governmental organizations, industry and the community in general must cooperate in the care of Ontario's biological assets. The issue is more than just focusing on species that are formally listed as being "at risk". Our proactive stewardship efforts also focus on restoring habitats for species that may be declining regionally, thereby preventing other species from becoming imperiled, or listed as "at risk". Efforts to enhance supplies of forest-interior habitat, tall-grass prairie and savannah habitats and coastal wetlands are just a few examples of restoration activities that contribute to the recovery of declining populations. These actions are consistent with the stewardship efforts that are promoted under Canada's *Species at Risk Act* and Canada's Stewardship Agenda.

Some of OPG's more notable plant-based initiatives undertaken in 2004 include:

- Biodiversity Management Plans were revised for hydroelectric and fossil facilities to reflect current information on plant and wildlife species of concern in the vicinity of facilities.
- Niagara Plant Group conducted biological surveys of the Welland River and Power Canal Lands associated with the Sir Adam Beck complex, to identify plant and wildlife species of concern (endangered, threatened and special concern). Management plans were also developed.
- Hydroelectric facilities in northwestern, northeastern and central Ontario are finalizing plans with government agencies and stakeholders to identify key environmental issues related to water flows and levels.
- The local Boy Scouts group in Atikokan planted 2,100 pine and spruce trees along the berm of the ash pile at Atikokan GS in northwestern Ontario. Plantings were done to stabilize slopes against erosion.

Nanticoke GS undertook various initiatives including:

- Planting of 1,500 native trees on its 32 hectare naturalization site. Since 1997, this program has planted 30,000 trees in a program to revert an area of manicured parkland to a mixture of open field and woodland.
- Planting of over 1,000 native trees on the Snowden property as part of the Haldimand Natural Heritage Corridor initiative. In partnership with the Haldimand Stewardship Council and the Haldimand Woodlot Owners Association, this was a regional effort to promote riparian habitat restoration and wildlife corridor enhancement.
- In partnership with the Haldimand District Scouts, over 40 bird nest boxes were maintained and monitored for use on site.
- Hosting a contingent of Ministry of Natural Resources Stewardship Rangers to conduct a planting survival survey to provide information on the success of the naturalization and tree planting efforts.
- Providing support to the Haldimand Bird Observatory for the purchase of mist nets used for spring migratory bird banding.
- Conducting amphibian surveys of wetland areas on the Nanticoke GS site as well as surveys of adjacent lakeshore for the rare Fowlers Toad.

Darlington GS undertook various initiatives including:

- An annual site biological inventory of breeding birds and amphibians was conducted, completing seven years of inventory. A statistical analysis of data demonstrates that biodiversity remains stable. Over 200 breeding bird species have been recorded on site.
- Invasive species management targeting the removal of Black Locust and European Buckthorn from the site's Coot's Pond Trail.
- Wetland habitat enhancement with the creation of a third pond on site. Green frogs, dragonflies, cattails and other wetland vegetation have been observed in this newly created pond.
- Tree planting - approximately 1,500 native saplings were planted with the help of local scout troops.
- Environmental Partnership with Courtice Secondary School - students assisted in making trail signage and in the maintenance and monitoring of wood duck boxes.

Pickering GS undertook a number of key initiatives in 2004 in partnership with such groups as the Toronto and Region Conservation Authority, Frenchman's Bay Watershed Rehabilitation Project, City of Pickering, Boy Scouts, Girl Guides and local schools. Examples include:

- Planting of 1,200 native trees and shrubs as part of a habitat restoration effort in Rotary Frenchman's Bay West Park.
- Planting of over 1,000 native trees and shrubs as part of a restoration project in Alex Robertson Park.
- Planting of a wildflower garden in Alex Robertson Park.
- Creation of a brush wall fish barrier to prevent carp, an invasive species, from entering Hydro Marsh.

Pickering GS has also undertaken a variety of biomonitoring programs, including:

- Durham coastal monitoring program.
- Fish impingement at Pickering B.
- Amphibian monitoring at Hydro Marsh.

Wesleyville Industrial Park, located near Port Hope, is the site of a partially completed power generation facility now used for training and warehousing functions. A biodiversity program has been active since 1999 with such partners as the Ganaraska Region Conservation Authority, the Willow Beach Field Naturalists, Ministry of Natural Resources, Department of Fisheries & Oceans, and the Sea Lamprey Control Centre. Key accomplishments in 2004 included:

- Planting of over 15,000 native trees along the shoreline properties to promote wildlife corridors, core interior habitat enhancement and reforestation. Since 1999, Wesleyville has planted over 80,000 trees.
- Installation and monitoring of 20 bluebird/swallow boxes, three kestrel, and one wood duck box - producing 12 broods of tree swallows (~ 50 hatchlings) and one brood of kestrels (three hatchlings).
- Installation of a sea lamprey control structure to prevent spawning in Wesleyville creek (which is prime brook trout habitat).
- Electrofishing and redd (nesting) survey of Wesleyville Creek for brook trout as part of the management program for brook trout rehabilitation.
- Marsh Monitoring of two wetland sites on the Wesleyville property.

Independent Third-Party Certification of Management Plans: One of OPG's more notable partnerships is with

the U.S. based Wildlife Habitat Council (WHC). The WHC is a not-for-profit, non-lobbying group of corporations, conservation organizations and individuals dedicated to assisting corporate landowners in the development of programs that protect, conserve and enhance wildlife habitat and biodiversity and foster environmental values. The WHC was established in 1988 with a mission to work with industry to make better use of their land holdings for wildlife and biodiversity needs. They act as an independent advisor and certifier of programs and work to build the company's image while contributing to wildlife habitat rehabilitation. WHC members include more than 100 corporations and two dozen conservation organizations.

OPG has submitted several of its site habitat management plans to the WHC for independent third party professional review and accreditation. Four of our sites (Pickering GS, Nanticoke GS, Lambton GS and Darlington GS) have been certified by the WHC, and two of those sites, Pickering GS and Nanticoke GS, were re-certified in 2004. Sir Adam Beck GS, Thunder Bay GS and Lennox GS are currently pursuing certification. Both of our nuclear stations, Darlington GS and Pickering GS, have won international awards for their habitat management plans and associated community involvement and education programs. To maintain certification, OPG must pass external audits from the WHC on a biennial basis to ensure plans are being effectively implemented and remain current. These efforts are in addition to annual reporting, monitoring and audits which are required to maintain our ISO 14001 registered environmental management systems.

Biodiversity-Related Awards: OPG has received praise for its Biodiversity Policy and related programs by several external groups including the World Business Council for Sustainable Development, the Electric Power Research Institute and the Wildlife Habitat Council. We are making significant contributions to the protection and restoration of nature both on and off of our sites.

Partnerships

Meaningful progress on biodiversity and conservation initiatives can be enhanced through partnerships with environmental organizations. Partnerships can serve to leverage funding, resource and expertise capabilities, thereby making it possible to make greater conservation advances than any single organization could otherwise achieve.

To illustrate, OPG has an excellent record for working with external environmental organizations and for progressively managing biodiversity issues at its facilities. We have developed partnerships with many groups, including Conservation Authorities, Provincial Ministries, local municipalities, not-for-profits (e.g. Ducks Unlimited) and two World Biosphere Reserves (Niagara Escarpment and Long Point Region). For example, at Pickering GS, bio-monitoring of water quality, plants and wildlife is done to measure the success of management programs in partnership with the Toronto and Region Conservation Authority and community volunteers.

Water

As an integral part of OPG's power generation, water provides a large-scale, largely air emissions-free source of energy. It is also OPG's lowest-cost source of electricity. In addition to using water as a direct means to generate power, it is also important to OPG for cooling and various processing applications at the nuclear and fossil-fuelled stations.

Water Use in Hydroelectric

In 2004, OPG generated 35.7 TWh of renewable hydroelectric power, which was an increase of approximately 10 per cent over 2003. This increase was due in part to a relatively wet summer season in 2004, which provided additional water flows and therefore hydroelectric capacity and generation.

Water Management Planning

Through a consultative process, OPG, the Ministry of Natural Resources and local stakeholders consider sustainable solutions for water resources management. Accordingly, progress continues to be made to develop water management plans for provincially regulated river systems. More specifically, based on initiatives undertaken in 2004, four management plans for rivers under the direction of the Northeast Plant Group, and three plans for the Northwest group, will be completed in 2005.

Ottawa/St. Lawrence Plant GS, Cornwall: In 2004, a fisheries workshop was held at the OSPG R.H. Saunders Generating Station in Cornwall, Ontario. The event was hosted by OPG, Ottawa/St. Lawrence Plant Group, and the Ontario Ministry of Natural Resources.

The objective of the workshop was to bring together researchers, regulators, industry and Aboriginal people from Ontario, Quebec, and the Northeastern United States to discuss the status of lake sturgeon in Lake St. Francis and to capitalize on the accumulated knowledge of the participants.

The workshop was developed around three modules:

Module One - Lake St. Francis and Surrounding Waters

Module Two - Biology of Lake Sturgeon

Module Three - Lake St. Francis Sturgeon Management

Each module included brief presentations followed by breakout sessions to discuss specific objectives.

As a result of the workshop, participants identified the need for further research on lake sturgeon sampling techniques, standardized population assessment tools, and a need to review research being done in other locales on aspects of lake sturgeon population dynamics and how this knowledge could be applied to management challenges in Lake St. Francis.

Thunder Bay GS and the Lakehead Region Conservation Authority: When the Lakehead Region Conservation Authority needed sponsorship for its work at Mission Marsh, Thunder Bay, they turned to OPG. The Mission Marsh is located adjacent to the Thunder Bay GS property, and it is one of the only wetlands in that area of the Lake Superior shoreline. It is a significant area for bird migration and is a focal point for local birdwatchers.

In 2004, OPG completed its support for new entrance signage to the Marsh. Additionally, OPG supported the provincial meeting of all the provincial conservation authorities in Thunder Bay by sponsoring an event and by planting about 15 mature trees at Mission Marsh. In previous years, OPG supported handicap access projects to ensure that all residents had an opportunity to observe local birds, small animals and deer.

Protecting Loons

Fluctuating water levels due to hydroelectric plant operations can potentially harm loon nesting. For this reason, five loon nest platforms were constructed by staff from Stewartville G.S. and installed within the Madawaska River Watershed. The platforms are monitored regularly to assess use and condition.

Water Use in Fossil and Nuclear Generation

Nearly all water used by OPG's fossil and nuclear stations is for cooling purposes. The water passes through the station once and is returned to its source at a slightly higher temperature. The taking of water is governed by the Ministry of the Environment Permits to Take Water.

For 2004, OPG's fossil and nuclear plants used approximately 13,716 million cubic metres of water, as compared to 13,473 million cubic metres in 2003.

Social Performance

OPG is committed to building quality relationships with our external stakeholders and employees. We strive to ensure that safety characterizes all aspects of our operations, and we have a strong social mandate to "give back" to the communities in which we operate.

Safety

OPG strives to achieve safety excellence, with an ultimate goal of zero injuries. With this goal in mind, safety performance can be expressed using several indices.

Specifically, Accident Severity Rate (ASR) is a measure of the number of days lost due to injuries. OPG safety performance in 2004, as measured by the ASR, was 0.96 days lost per 200,000 hours worked. This result is the best since the company's inception in 1999.

All Injury Rate (AIR) provides a measure of the frequency of incidents resulting in lost time or requiring medical treatment. In 2004, AIR was 1.53 injuries per 200,000 hours worked.

Several initiatives were implemented in 2004 to improve safety performance:

- OPG continued to keep safety "front and centre" with employees, reinforcing a positive safety culture, with the Reason Why I Work Safely campaign. Monthly posters and articles in PowerNews, as well as a calendar issued to all employees at the beginning of the year, profiled OPG employees with a photograph of their "reason" for working safely - "reasons" included family members, hobbies, dreams, sports activities, etc.

- OPG's Safe Contractor Management project was completed in early 2004, producing a "best in class" Contractor Management Program. OPG expects its contractors to work to the equivalent level of safety as OPG employees while at OPG workplaces. The program includes a pre-qualification process which has been used to qualify over 200 of OPG's key contractors, helping to ensure the safety of everyone on OPG worksites. OPG has shared this program with several external organizations hoping to improve safety in this area.

- The enhanced OPG Corporate Safety Rules became effective on July 1, 2004, "raising OPG's bar on safety", specifically regarding high risk activities. Implementation included face-to-face presentations, computer-based training and local procedural revisions. Ongoing maintenance of the rules involves comprehensive management/union review of any requested changes and clarifications, thus helping to ensure the rules remain aligned with current legislation and continue to provide protection in high-risk areas.

- One of OPG's highest risks is "fall management" (i.e., preventing people from falling from height and objects falling on people). A multi-disciplinary team was assembled with representation from Electricity Production, Nuclear and external consultants to conduct an Integrated Safety Risk Management Review on Fall Management. During this six-month review, the team found that knowledge, procedures, tools and equipment were generally in place and well maintained. Where opportunities for improvement were identified, stations and plant groups have developed specific action plans which will be carried out as part of the continuous improvement process within their respective safety programs in 2005.

- As a major employer in Ontario, OPG has a responsibility to improve young worker safety. In 2004, OPG became a corporate sponsor of PassPort to Safety, an on-line training program designed to enhance fundamental safety knowledge and awareness. This training was offered to OPG summer and co-op students.

Additionally, OPG employees were offered the opportunity to obtain this training for their children, grandchildren and other young relatives. OPG also sponsored a number of community events with Rob Ellis, a well-known speaker and advocate for young worker safety. Rob's message reached over 1,000 employees and young workers in 2004. As well, a young worker safety screensaver promoted this initiative.

- OPG continued several key initiatives to enhance public safety, including participation in a Public Waterways Safety workshop as part of the Canadian Dam Association's Annual General Meeting in September. This workshop highlighted the OPG Public Waterways Safety Risk Assessment process. Workshop participants were exposed to information and job aids used by OPG in protecting the public from hazards associated with intakes, spillways and tailraces. Representatives from the Ministry of Natural Resources recognized OPG's approach as a best practice in dealing with public waterways safety.

Employee Wellness

Improving the health and wellness of OPG employees through preventative wellness programs and active management reduces absences and increases productivity.

Accordingly, OPG continues in its efforts to provide a broad spectrum of employee support and education including:

- Monthly Wellness Themes supported with employee lunch-and-learn sessions, web based tools and access to Nurse Care Coordinators for consultation and assistance.
- Assistance in the early and safe return to work for employees who are injured or ill, through our award-winning Disability Management Program.
- Employee Family Assistance, including advice, counselling and referral service, available to employees, their spouses and dependents.
- Prevention programs such as on-site flu shots.
- Employee fitness using on site or community facilities, and support for employee sponsored "fun runs".

OPG runners dominate annual YMCA Corporate Team Challenge. OPG fielded 18 teams from Head Office, Pickering, Lakeview and Darlington, 72 runners in all that participated in the 23rd Annual Corporate Team Challenge in support of the YMCA. Three of OPG's teams placed in the top three in their age catagories and helped raise a total of $120,000 for the YMCA. Well done!

- Special risk-based strategies to minimize impacts of health issues such as SARS and West Nile virus. OPG's West Nile virus strategy included employee communication and development of facility plans to minimize mosquito breeding sites, stagnant water removal, larvae sampling, larviciding, bird surveillance and cooperation with local and regional governments.

Diversity

OPG engages in a myriad of activities that demonstrate our commitment to diversity and equity. In all parts of our company, employees are working to build meaningful links with - and a deeper appreciation for - Ontario's diverse communities.

Social Performance

To better establish diversity outreach and recruitment efforts, OPG has established relationships with non-profit agencies that enable connections with designated group members who are seeking employment. More specifically, partnering with agencies like Strategic Employment Solutions (focus on people with disabilities) and Skills for Change and Access (foreign-trained workers), OPG has been a part of some exciting initiatives involving education, mentoring and communications. Through this kind of dialogue and collaboration, we gain insight as to what strategies can help ensure our workplaces are open and inviting. Additionally, employees who are involved benefit from the relationships they develop and the experiences they are afforded. Whether it's coaching a new Canadian in job search skills, sharing career advice with young women, leading a White Ribbon campaign to help end violence against women, conducting a clothing drive for needy people trying to re-enter the workforce, organizing toy or clothing collections for children at Christmas, or gathering donations of used hockey equipment, OPG employees continue to show empathy and leadership.

Internally, new employee networks are emerging that encourage employees in various groups to network, share ideas and generally help make OPG a preferred place to work. OPG has had a Native Circle for many years, and in 2004 we added two new and different types of employee groups: a chapter of the international organization Women in Nuclear; an on-line network for employees with disabilities and for employees with children with special needs. Members of these groups can support each other, and they can support OPG by providing advice and feedback on issues related to the workplace.

Resolving Employee Concerns and Conflicts: OPG was one of the first companies in Canada to extend its internal Human Rights and Harassment Procedure beyond the bounds in human rights legislation to address personal harassment and poisoned work environment. In 2004, the majority of complaints (78 per cent) alleged non-human rights personal harassment/poisoned work environment. Roughly 12 per cent cited citizenship/ancestry or race as grounds of harassment/discrimination, four per cent gender, two per cent sexual orientation, two per cent disability and two per cent religion. Race/citizenship/ancestry as the most cited grounds for human rights issues is a shift from past years, in which gender was most frequently cited. It is remarkable that only one complaint citing disability was filed - both the Federal and Ontario Human Rights Commissions report that disability is the most frequently cited human rights ground year after year. This result is a positive comment on OPG's accommodation practices.

OPG has a progressive approach to managing human rights and harassment issues, using a procedure that was developed in collaboration with both of our unions and calls for agreed upon external investigators when an investigation is deemed necessary by the accountable manager.

In addition, OPG has an Ombuds office that looks beyond the strict requirements of policies and procedures to ensure that employees are treated fairly. This office serves as a confidential objective recourse for employees to raise concerns that do not fit within procedures or collective agreements.

Our Commitment to Employment Equity: OPG is committed to ensuring that all of our employees have

Table 2: Issues Identified in the Workforce Analysis for OPG (as of December 31 , 2003)

Occupational Category	Women	Visible Minorities	Aboriginal People	People with Disabilities
Senior Manager	▼	▼	✔	✔
Middle & Other Manager	■	✔	■	✔
Professional	✔	✔	●	■
Semi-professional & Technical	■	■	✔	■
Clerical Supervisor	✔	▼	✔	✔
Trade Supervisor	▼	■	✔	●
Admin & Senior Clerical	✔	■	✔	■
Skilled Sales & Service	✔	✔	✔	✔
Skilled Crafts & Trades	●	■	✔	✔
Clerical	✔	■	■	●
Intermediate Sales & Service	✔	■	✔	●
Semi-skilled Manual	✔	▼	✔	▼
Other Sales & Service	✔	▼	✔	■
Other Manual	●	▼	✔	■

▼ = "serious" under-representation means that our representation is less than 20 per cent of the available qualified external workforce.
■ = "significant" under-representation means under 80 per cent of the external workforce.
● = "moderate" under-representation between 80 and 90 per cent of external workforce.
✔ = shows where OPG is in line with the external available workforce.

equitable access to opportunities. We report annually to Human Resources and Skills Development Canada (HRSDC) on site and Corporate Equity and Diversity initiatives, and for three years in a row HRSDC has awarded OPG the top rating for these programs. We are governed by Federal Employment Equity legislation, and in June 2004 we submitted to the Canadian Human Rights Commission auditor substantial documentation regarding the fulfillment of our obligations under this legislation.

One of these obligations is to compare our internal representation of "designated groups" - women, visible minorities, persons with disabilities and Aboriginal peoples - with the external available workforce. This is called a "Workforce Analysis" and is represented by Table 2.

To help identify the reasons for any gaps identified by the Workforce Analysis between our internal workforce and the external one, consultations were conducted in 2004 with roughly 200 workplace parties - employees, managers, human resources and union representatives. Following these consultations, all OPG sites and organizations began to work on Employment Equity Action Plans to address the issues identified. These plans will focus on the period 2005-2007, and are expected to be approved and submit-

ted to the auditor and communicated to all employees in the second quarter of 2005. Implementation of actions is in progress.

Code of Business Conduct

OPG's Code of Business Conduct reinforces our belief that personal values and integrity are the source of sound, ethical business decisions, including respect for the environment and a commitment to health and safety.

Our Chief Ethics Officer, John Murphy, reports directly to OPG's President and CEO and provides an annual report to the Board of Directors on our ethics program. In addition to the annual refresher training on the Code required to be taken by all employees, a new supervisory training module was launched in 2004.

Striving to be a Good Neighbour

OPG strives to be an open and transparent company. We want members of the communities in which we work - our neighbours - to feel that they can come to us with any questions or concerns and know that they will be treated with respect. In each of our site communities staff work daily to encourage, build and improve dialogue with our host communities.

Station staff meet regularly with neighbours, community organizations, municipal, regional, provincial and federal elected officials, to talk with them about our company and learn what we can do to continually improve our relationships with them.

Formal updates with mayors, councils, MPs, MPPs and their staff are held to keep our host communities informed about our generating stations and our company, and to help us understand how we can improve our support in communities. The company also sponsors and participates in many community events where OPG staff can speak directly with neighbours, one-on-one, about their interests and concerns.

Charitable Contributions

OPG has provided over $3 million to more than 1,300 initiatives in our host communities during the period of January 1, 2002 to December 31, 2004. This support included annual contributions to the United Way, and Festive Season contributions to over 35 food banks annually across our site communities. Recipients also included 270 health and safety organizations, 520 youth amateur sports organizations, 240 arts and cultural institutions, as well as 270 local community events and humanitarian initiatives.

Neighbours Newsletters

"Neighbours" is an OPG newsletter published by each of our major generating stations, and the Western Waste Management Facility located in Tiverton. It is published and distributed widely, on a regular basis, within site communities. Neighbours provides information on plant performance,

and updates the community on local environmental, educational and community projects supported by OPG.

We regularly ask for feedback from our neighbours on these publications, and suggestions for improvement are often incorporated into future publications.

Public Safety is a Priority

OPG staff work closely with partners in site communities to improve awareness of any dangers posed by our operations and in particular the dangers around hydroelectric dams and stations. Newspaper, magazine and radio advertisements describe the need to stay safe near hydroelectric sites. OPG staff and community organizations distribute brochures, videos, a computer game for children, and provide numerous presentations to schools and community groups to help people understand how the areas and waters around hydroelectric dams and stations can be dangerous. We work with local community groups to raise awareness and promote safety.

In 2004, independent research was conducted in site communities to determine the effectiveness of this work. As in 2003, research in 2004 indicates that OPG's public education program continues to be effective. People are more aware of what they need to do to stay safe near hydroelectric dams and stations. The public is supportive of OPG's efforts to upgrade and improve safety measures, including signs, booms, and buoys around our hydroelectric facilities.

OPG's web site (www.opg.com) provides a wealth of information on our community outreach and safety efforts.

Corporate Citizenship Program (CCP)

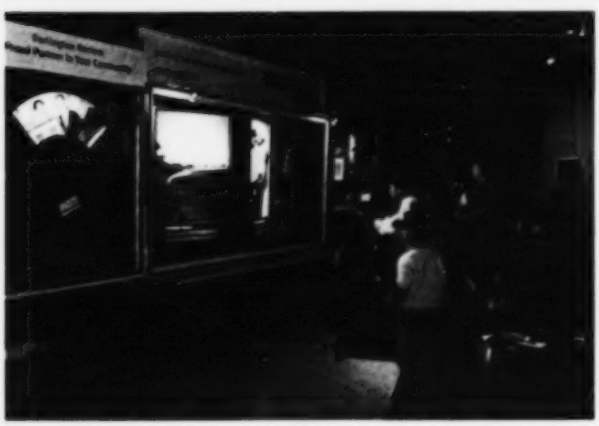
Ontario is a province of complex, dynamic communities with a wide range of environmental, social and economic needs. OPG helps to address these needs by supporting many charitable and not-for-profit initiatives in the communities where we operate.

Under its Corporate Citizenship Program (CCP), OPG carefully considers proposals from registered charities and not-for-profit organizations; these may include donation or sponsorship requests for financial and/or in-kind contributions, joint ventures or strategic alliances, awards, grants, scholarships, internships and mentoring programs. Our CCP focuses support in areas where OPG and our host communities have special interest. These include initiatives

that are innovative and are consistent with the company's commitment to be an engaged and productive member of the community. Ultimately this means minimizing our impact on the environment and ensuring that our contribution to the broader community is consistently positive.

To achieve this goal, OPG's CCP focuses support in three primary areas:

1. **Environment**: We contribute to a healthier environment for future generations by providing support for innovative environmental initiatives and partnerships that look at solutions - ones that focus on wildlife and habitat restoration, naturalization, emissions reduction, biodiversity, recycling and environmental education.
2. **Education**: We help future generations through support of youth educational initiatives at the primary, secondary and post-secondary levels. Specifically, we focus on projects that promote science, engineering, technology, business and the environment through educational programming, scholarships and awards, sponsorship of camps, competitions and conferences, as well as educational and mentoring programs.
3. **Community Initiatives**: We contribute to the quality of life in the communities in which we operate. In addition to local environmental and educational initiatives, we support health and safety organizations, arts and cultural initiatives, humanitarian organizations such as the United Way, food banks, shelters, and local youth amateur sports initiatives.



Young participants at the OPG Mobile Exhibit during March Break at the Ontario Science Centre. These young people learned how many watts of energy they could generate peddling the OPG bikes and the importance of energy conservation. OPG proudly sponsored March Break at the centre from 2002 to 2004.

Major CCP programs that OPG supported, or continued to support, in 2004 include:

- **Regional Biodiversity Support**: OPG's nuclear, hydroelectric and fossil stations occupy large tracts of land bordering lakes and waterways in some important ecological areas of Ontario. At each of our facilities, we strive to protect the health and well-being of the native wildlife and ecosystems. Guided by our Biodiversity Policy, between 2002-2004 we contributed to over 160 environmental initiatives in support of regional biodiversity and environmental stewardship including support for: World Wildlife Fund Canada, Bird Studies Canada, Canadian Peregrine Foundation and Ducks Unlimited Canada.
- **Bikeshare Program**: As the Founding Sponsor of the Community Bicycle Network's Bikeshare Program, which operates as a bicycle lending library in the Greater Toronto Area, OPG helped Bikeshare staff expand the program from 50 bicycles in 2001 to over 150 bikes on the road, and over 1,000 members, in 2004. OPG's contribution went beyond financing to helping program staff put a business plan into effect. For more information on Bikeshare, visit www.communitybicyclenetwork.org.
- **Scholarships**: Between January 1, 2002 and December 31, 2004 the CCP contributed to over 1,000 youth edu-

cational initiatives including 59 OPG Post Secondary Scholarship Awards across nine universities and fifteen colleges, and over 730 OPG Secondary School Student Achievement Awards at over 100 Secondary Schools in our host communities. OPG is committed to helping develop the potential of Ontario's youth through scholarships and student awards.

- **National Engineering Week**: OPG proudly supports National Engineering Week (NEW)-Ontario. The program targets young people to raise awareness of the role that engineering and technology play in our daily lives and to encourage young peoples' interest in engineering, science and technology. In 2004, NEW involved over 100 events and activities in 35 communities across Ontario, attracting participation by over 30,000 children, teens and adults. OPG engineers and staff have participated in events at the Ontario Science Centre, Science North, the Canadian Science & Technology Museum in Ottawa and the London Regional Children's Museum.

- **Pickering GS Supports Health Care**: Pickering Nuclear Generating Station provided a leadership gift of $1,000,000 (payable over 2001-2005) to the Rouge Valley Ajax and Pickering hospital (RVAP), a site of the Rouge Valley Health System, to establish the OPG Nuclear Medicine Clinic at RVAP. As a company dedicated to generating a significant amount of our electricity production from nuclear power, it seemed a particularly good fit for us to support this nuclear medicine facility. Many of our employees live in the region that will be served by this new facility, and we want them and citizens of our host communities to have access to the best quality health services. The OPG Nuclear Medicine Clinic provides state-of-the-art screening and diagnostic procedures for cancer while also aiding physicians in determining the various stages of the disease. Nuclear medicine is also a key tool in the diagnosis of cardiac, lung and bone diseases.

- **Darlington GS Heroes of Hope**: For the residents of Clarington and Oshawa, the Heroes of Hope Campaign, in support of the new R.S. McLaughlin Durham Regional Cancer Centre, is a community priority. Darlington Nuclear answered the community's call with a Leadership Gift of $600,000 (payable over 2000-2005) to establish the OPG Computed Tomography Simulator Unit. The Centre, once complete, will provide local residents with convenient access to a full range of cancer-care services.

- **Western Waste Management Facility (WWMF) Supports Youth**: The OPG Kincardine Youth Basketball League is now in its third season providing area youth in Grades 5-8 with an opportunity to play basketball. WWMF is the founding sponsor of the basketball league, which consists of 10 teams and numerous young players who love the game and want to improve their skills.

- **Atikokan GS Supports Scout Group**: The cornerstone of Atikokan's Biodiversity Policy is the principle of maintaining the existing variety of flora and fauna present on the plant site. It was a natural fit for Atikokan GS to lend support to the 4th Atikokan Scout Group to help local youth raise their awareness of environmental stewardship, reflected in the group's efforts to "green" the Atikokan plant site by planting 2,000 trees near the plant's ash landfill site.

- **Thunder Bay GS Supports Health Care**: Residents of Thunder Bay, Atikokan and Northwestern Ontario now have access to state-of-the-art health care with the

opening in 2004 of the Thunder Bay Regional Health Sciences Centre, a new acute care facility. OPG's Thunder Bay, Atikokan and Northwest plant sites were there to lend the community a helping hand with a combined gift of $100,000 to the Centre's Care Beyond Compare Campaign. The support was targeted to the OPG Nuclear Medicine Clinic at the new centre to provide screening and diagnostic procedures for cancer, cardiac, lung and bone diseases.

- **Lennox GS Supports Local Kids**: Since 2001, Lennox GS has been the Presenting Sponsor of the Annual Loyalist Kids of Steel (KOS) Triathlon, for youth aged seven to 16. Matthew Edwards, participant in the KOS triathlon writes: "I would like to thank OPG Lennox GS for their support of the Kids of Steel Triathlon held in July in Loyalist Township...I was at the cheque presentation held at Lennox GS in the spring and was taken on a tour of the plant. It was very interesting. I thought I should write and let you know how my summer went - thank you all for your support."

- **Lambton GS Wetlands Restoration**: Thanks to a $100,000 donation from Lambton GS, Ducks Unlimited Canada's wetland restoration at the Sileno C. Corsini / Pigeon Marsh was completed. This internationally significant wetland provides habitat for 700 plants and 200 bird species. The station's environmental support also includes the Wildlife Habitat Council's St. Clair River Waterways for Wildlife Project and Biodiversity Atlas of the Lake Huron to Lake Erie Corridor.

- **Nanticoke GS Supports Educational Programs**: Haldimand and Norfolk Counties have a strong agricultural heritage, which is reflected in events such as the Norfolk County Fair and Horse Show, the Dunnville Fair, the Caledonia Fair and the Jarvis Cornfest. Nanticoke GS is proud to sponsor community events such as these. In 2004, the station supported an innovative educational program with local school boards called the "Read Your Way to the Fair!" initiative, which encouraged 4,500 Grade 4-6 students to read more to earn free admission to the Norfolk County Fair.

- **Niagara PG Supports Health Care**: The need for a larger, newer Emergency Department for the Greater Niagara General Hospital was identified as a key community priority in 2002. The Niagara PG was proud to contribute to this important community initiative with a gift of $100,000 (payable over four years, 2002-2005).

Representatives from Ducks Unlimited Canada, Canadian Wildlife Service and Ministry of Natural Resources visit the OPG Project Segment at the Sileno C. Corsini/Pigeon Marsh near Wallaceburg.

- **Ottawa/St. Lawrence PG Supports Habitat Protection**: Stewardship of the waterways and lands is a key component of the Ottawa/St. Lawrence PG's community involvement. In 2004, the PG supported the Renfrew County Stewardship Council's Wetland, Woodland and Wildlife Project to improve water quality and habitat in the Madawaska River Basin. Other stewardship initiatives include support of the St. Lawrence River Institute of Environmental Sciences (SLRIES) which specializes in environmental research affecting waterways, and sponsorship of the SLRIES annual conference in addition to its Eco-Friends Summer Day Camp Program.

- **Northeast PG Focuses on Public Safety**: Students from Timmins' Don Bosco Public School participated in a water safety demonstration and tour at Sandy Falls GS. They and 800 others from 15 area schools visited Sandy Falls to learn about water safety and hydroelectric facilities. The Northeast PG also took the OPG "Stay Clear, Stay Safe" water safety education program on the road reaching an additional 600 students in northeastern schools. Safety is important to OPG, and we ask that the public respect the hazards near our dams and stations, by heeding warning signs, booms, buoys, and barriers.

Students from Don Bosco Public School, Timmins, participate in a water safety demonstration.

- **Northwest PG Focuses on Public Safety**: Given OPG's focus on safety, the Northwest PG supports organizations that share the same safety focus. These include the Terrace Bay Safety Education Program for primary students, and the Red Cross (Thunder Bay) "Water Safety Rules" and "On Board" education programs for students.

- **Evergreen Energy and FIRST Robotics**: In 2004, students from North Bay captured two major awards against competition from hundreds of teams in the worldwide FIRST Robotics Championship in Atlanta, GA. The team, known as the Near North Student Robotics Initiative, was sponsored by Evergreen Energy and consisted of students from four North Bay area high schools - Chippewa, West Ferris, Almaguin Highlands and Centennial Public School. Two of the team's members - Todd Willick and Kyle Willick - are the sons of OPG's Ray Willick, a Union Trades Supervisor-Mechanical, at the Otto Holden hydroelectric station. Kudos to the team and their robot, named Mammoth, for earning the Rookie Top Seed Award in their division.

Community Accolades

OPG's commitment to the communities where it operates was acknowledged by various organizations in 2004, including:

- The Town of Niagara-on-the-Lake presented OPG's Niagara Plant Group with a Heritage Commendation for

the adaptive re-use and restoration of the Sir Adam Beck #1 Power House.

- OPG employees supported the 2004 Clean Air Commute Challenge against Toronto Hydro. This annual event encouraged employees to leave their cars at home and find alternate and creative ways of commuting to work. OPG won the 2004 challenge.
- OPG's Ottawa/St.Lawrence Plant Group have received, for four years in a row (2001-2004), the National Hydropower Association's "Outstanding Stewardship of America's Rivers Award" for the plant group's work on the Madawaska River.

His worship, David Miller, Mayor of Toronto with Cara Clairman of OPG during the launch of Bike Week 2004 at Nathan Phillips Square. OPG has sponsored Bike Week since 2002.

Economic Performance

OPG creates economic value for the government and residents of Ontario. Value creation results through local procurement and cash transfer payments to the province, competitive employee compensation programs, and technical innovations in electricity production and consumption.

Financial Results and Cost Control

OPG's 2004 financial results showed a net income of $42 million or $0.16 per share, compared to a net loss of $491 million or $1.92 per share in 2003. Before tax loss was $38 million in 2004, compared to a before tax loss of $494 million in 2003, representing an improvement of $456 million. OPG's 2003 results included an impairment loss of $576 million before tax ($473 million after tax) due to the Ontario government's decision to shut down OPG's coal-fired stations significantly before the end of their previously estimated useful lives.

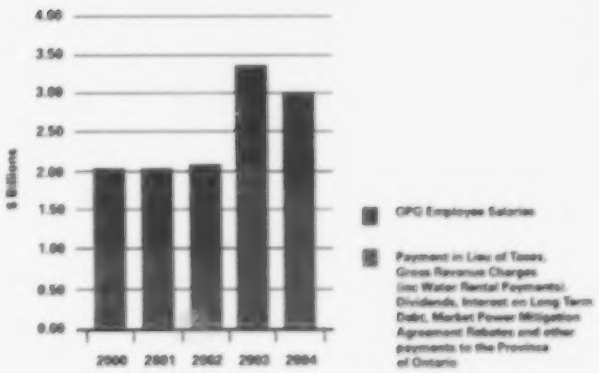
Through aggressive cost management, in 2004 OPG was able to significantly reduce its operations, maintenance and administration costs. This included a reduction in the use of consultants, the curtailment of business travel and reduced information technology costs. Going forward, OPG will continue to improve its cost efficiency.

Employee Compensation and Provincial Payments

In ongoing efforts to attract and retain a highly qualified workforce, OPG offers employees competitive compensation. In 2004, compensation to OPG employees totalled approximately $1.26 billion (see Figure 6). Recognizing that most OPG employees live in Ontario and purchase their goods and services locally, this compensation directs a substantial transfer of wealth back to the province.

OPG creates additional benefits for the provincial economy through payments made in lieu of taxes, gross revenue charges (including water rental payments), dividends, interest on long term debt, market power mitigation agreement rebates, and other payments to the Province of Ontario. In 2004, these payments totalled nearly $1,735 million.

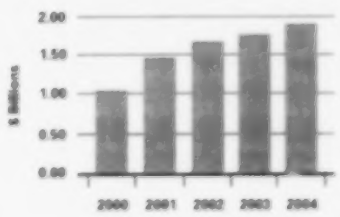
Figure 6: OPG Salaries and payments made to the Province of Ontario in lieu of taxes, dividends and water rental payments.



Purchase of Goods and Services

OPG provides support to the Province of Ontario through the purchase of goods and services. In 2004, the total purchase of goods and services in Ontario by OPG was $1.9 billion (see Figure 7).

Figure 7: Total purchase of goods and services by OPG within Ontario.



Green Power: OPG's future mandate does not include exploring wind power or other forms of non-hydro renewable energy. However, in 2004, OPG did have a green power portfolio.

Green power is electricity generated from low environmental impact renewable energy sources such as wind, solar, biomass and small hydroelectric facilities. OPG's green

power portfolio consists of 32 OPG owned EcoLogo™-certified facilities and EcoLogo™-certified capacity from power purchase agreements with a total capacity of approximately 146 MW. The green power portfolio generated over 756 GWh of power in 2004, sufficient to supply the energy needs for approximately 60,000 homes.

OPG continued to be one of only a few companies operating commercial wind installations in the Province of Ontario in 2004:

- Pickering Wind Generating Station: The Pickering Wind Generating Station completed its third full year of operation and its total output was about 2.9 GWh.
- Huron Wind Farm: The Huron Wind Farm, 50 per cent owned by OPG, completed its second year of operation producing over 22 GWh of electricity.

In 2004, OPG offered its green power for sale directly to large commercial and industrial customers. Green power was offered to residential customers through Oakville Hydro Energy Services.

Healey Falls Generating Station

Commercial and industrial customers could purchase green power in an effort to reduce their environmental footprint and to make a statement with shareholders that their organization has strong sustainable development values. OPG signed or renewed agreements to supply green power to a number of organizations in 2004, including: the Canadian Imperial Bank of Commerce, Hudson's Bay Company, FAG Bearings, Royal Bank of Canada, Dillon Consulting, Toronto Region Conservation Authority and National Bank Financial.

In the spring of 2004, the Government of Ontario issued a Request for Proposal (RFP) for 300 MW of new renewable energy supply in support of its goal of having five per cent of all supply in the Province derived from renewable sources by 2007, and 10 per cent by 2010. OPG was excluded from participating in this round of the RFP process but OPG did continue to move forward on several green power projects in anticipation of its potential involvement in future RFP solicitations:

- Healey Falls and McVittie Generating Stations: Environmental screening and interconnection studies were advanced for re-development of these two hydro facilities on the Trent-Severn and Wanaptei river systems respectively.
- Wind Prospecting: OPG and its partners continued to assess potential locations for wind farms in Ontario in anticipation of future RFP's for additional renewable supply in the province.
- Erie Flooring BioOil Project: Construction and commissioning of a 2.5 MW commercial demonstration of Dynamotive's fast pyrolysis process using wood wastes from the Erie Flooring plant near London was

undertaken in the fall of 2004. The plant is scheduled to be in-service in the first quarter of 2005.

Sponsorships: In 2004, OPG provided financial support for the following green power events/activities:

- Completed and distributed a Grade 5 Teachers' Kit on "Green Power" with the Science and Technology in Education Alliance (STEA).
- Provided mobile Watts on Wheels solar display to numerous customer and public events around the province.

OPG Ventures Inc.

Through its wholly owned corporate venture capital group, OPG Ventures Inc. (OPGV), OPG continues to manage a portfolio of investments in enterprises that are developing and commercializing leading-edge energy technologies. During the later part of 2004, a decision was made by OPG to scale down the investment activities of OPGV and to focus attention on managing existing investments with a view to monetizing investments in a manner that optimizes the return to OPG.

Since it was established in 2001, OPGV has invested or committed about $58 million directly and indirectly in private companies that are developing technologies that generate, transmit, store, transact or utilize electricity more efficiently, more cost effectively and with minimal environmental impact.

In 2004, OPGV added Encorp Inc. to its portfolio. Encorp, based in the US, is a leading provider of network technology and integration equipment for facility automation and distributed energy projects. Encorp's technology simplifies and automates the control of various distributed power resources.

SmartSynch Inc., another of OPGV's investments, is a leader in smartmetering technology specifically for large commercial and industrial customers. The company has shipped over 50,000 smartmeters to over 30 leading power utilities in the US and Canada. As part of its ambitious demand side management plans for the electricity sector, the Ontario Ministry of Energy has plans to make Ontario a leading jurisdiction in the deployment of advanced smartmetering technology.

Another of OPGV's investments, RuggedCom Inc. is helping electric utilities to automate components of their grid systems to enhance overall system control and reliability. RuggedCom is a leading designer and manufacturer of ruggedized networking and communications products capable of operating reliably in extremely harsh environments.

Stakeholder Feedback on this Report

OPG's Sustainable Development Report 2004 profiles our successes and areas for improvement in reference to environmental, social and economic performance at the company, generating station and plant group levels.

To assist OPG in improving sustainable development performance, we invite you to submit comments and recommendations to Adèle Malo, the Vice President of Sustainable Development, at the coordinates provided on the back cover of this report. Your comments will prove invaluable in helping our company to strengthen it's sustainable development performance. Any questions you submit will receive a response.

Appendix A

Ontario Power Generation for the years ended December 31

General Information | Net Generation | Dose to Public

NUCLEAR

Pickering A & B GS

Generation capacity:
Pickering A: 2,060 MW net
Pickering B: 2,064 MW net

Located on Lake Ontario in the city of Pickering, each generating station has 4 units. Three of the Pickering A units are temporarily out of service during the nuclear recovery program.
Number of used fuel bundles stored on site: 518,259
Tel: (905) 839-1151

Generation (net GWh)						Dose to Public (μSv)					
2004	2003	2002	2001	2000	1999	2004	2003[1]	2002	2001	2000	1999
15,672	12,770	14,300	12,957	9,968	13,649	4.1	4.7	6.3	6.8	3.6	13.1

Darlington GS

Generation capacity:
3,524 MW net

Located on Lake Ontario in the town of Newcastle, 70 km east of Toronto. This generating station has 4 units.
Number of used fuel bundles stored on site: 256,068
Tel: (905) 623-6670

Generation (net GWh)						Dose to Public (μSv)					
2004	2003	2002	2001	2000	1999	2004	2003[1]	2002	2001	2000	1999
26,486	24,810	27,600	26,142	26,581	25,411	1.2	1.7	1.1	1.2	1.8	3.8

1. Commencing in 2003, Dose to Public was calculated as "Critical Group Dose".

Glossary

k kilo x 10^3 kg = 1,000 grams	kWh (kilowatt-hour) = unit of electricity production
M Mega x 10^6 Mg = one million grams = one tonne	MWh (megawatt-hour) = 1,000 kWh which is approximately equivalent to the electricity used by one household in a month
G Giga x 10^9 Gg = 1,000 tonnes	GWh (gigawatt-hour) = one million kilowatt-hours which is approximately equivalent to the electricity used by 80 homes in one year
T Tera x 10^{12} Tg = one million tonnes	TWh (terawatt-hour) = 1,000 GWh which is approximately equivalent to the electricity used by 80,000 homes in one year. In 2004, OPG generated 105 TWh of electricity
Gross generation (generally expressed in MWh)	Total electricity produced by a generating station
Net generation (generally expressed in MWh)	Gross generation minus total internal energy use
Generation capacity (generally expressed in MW)	Indicator of generating station size based on its capacity to produce electricity on a continuous basis

General Information | Net Generation | Emissions

FOSSIL

Atikokan GS

Generation capacity: 215 MW net

Located west of Thunder Bay, the station has 1 coal-fired unit equipped with low-NOx burners.

Generation (net GWh)					
2004	2003	2002	2001	2000	1999
1,018	946	823	838	994	1,115

Emissions (tonnes)						
	2004	2003	2002	2001	2000	1999
SO_2	6,430	6,440	4,934	4,480	4,820	5,560
NO	1,464	1,217	1,013	950	1,100	1,310
CO_2	1,177,300	996,000	889,000	850,000	1,020,000	1,130,000

Lakeview GS

Generation capacity: 1,140 MW net

Located in Mississauga. The station has 8 coal-fired units.

Generation (net GWh)					
2004	2003	2002	2001	2000	1999
2,297	2,806	2,450	3,081	2,905	3,271

Emissions (tonnes)						
	2004	2003	2002	2001	2000	1999
SO_2	15,836	17,573	14,336	19,010	16,900	18,100
NO	3,221	3,675	3,160	5,050	6,480	8,740
CO_2	2,320,000	2,730,000	2,340,000	2,760,000	2,700,000	3,000,000

Lambton GS

Generation capacity: 1,975 MW net

Located on the St. Clair River south of Sarnia, the station has 4 coal-fired units, 2 of which are equipped with SO_2 scrubbers and selective catalytic reduction (SCR) equipment to reduce NO emissions.

Generation (net GWh)					
2004	2003	2002	2001	2000	1999
7,672	10,636	10,022	10,472	12,415	9,001

Emissions (tonnes)						
	2004	2003	2002	2001	2000	1999
SO_2	25,907	36,877	29,882	28,300	41,400	27,300
NO	5,294	7,149	9,790	11,800	14,800	12,800
CO_2	7,169,600	9,500,000	8,990,000	9,420,000	10,800,000	7,800,000

Lennox GS

Generation capacity: 2,140 MW net

Located on Lake Ontario in the town of Greater Napanee. The station has 4 oil and/or natural gas-fired units.

Generation (net GWh)					
2004	2003	2002	2001	2000	1999
602	2,775	2,762	3,243	1,288	2,393

Emissions (tonnes)						
	2004	2003	2002	2001	2000	1999
SO_2	2,449	4,060	2,645	1,877	655	1,750
NO	664	1,941	1,860	2,450	1,080	2,130
CO_2	613,300	1,950,000	1,250,000	1,880,000	843,000	1,600,000

Nanticoke GS

Generation capacity: 3,938 MW net

Located on Lake Erie, the station has 8 coal-fired units fitted with low-NO_x burners, 2 of which are equipped with selective catalytic reduction (SCR) equipment to reduce NO emissions.

Generation (net GWh)					
2004	2003	2002	2001	2000	1999
14,466	20,393	22,156	21,124	23,519	19,038

Emissions (tonnes)						
	2004	2003	2002	2001	2000	1999
SO_2	61,256	83,969	86,710	86,500	92,900	81,800
NO	13,768	23,051	24,420	22,400	25,200	24,300
CO_2	14,671,600	19,740,000	21,370,000	20,260,000	21,500,000	17,000,000

Thunder Bay GS

Generation capacity: 310 MW net

Located in Thunder Bay, this station has 2 coal-fired units.

Generation (net GWh)					
2004	2003	2002	2001	2000	1999
965	1,474	1,490	1,670	1,613	1,643

Emissions (tonnes)						
	2004	2003	2002	2001	2000	1999
SO_2	5,035	8,886	9,133	8,810	7,490	7,720
NO	1,633	1,972	2,042	1,970	1,870	2,090
CO_2	1,125,600	1,581,000	1,663,000	1,800,000	1,620,000	1,600,000

Appendix A

General information

Net Generation

HYDROELECTRIC

Niagara Plant Group

Generation capacity: 2,326 MW

Includes 5 stations, HQ in Niagara area

Generation (net GWh)					
2004	2003	2002	2001	2000	1999
12,597	11,944	12,268	11,860	12,246	12,355

Ottawa-St. Lawrence Plant Group

Generation capacity: 2,571 MW

Includes 10 stations, HQ in Renfrew

Generation (net GWh)					
2004	2003	2002	2001	2000	1999
13,002	11,935	12,262	11,494	11,873	11,550

Northeast Plant Group

Generation capacity: 1,287 MW

Includes 13 stations, HQ in Timmins

Generation (net GWh)					
2004	2003	2002	2001	2000	1999
5,320	5,515	4,758	4,740	4,671	4,958

Northwest Plant Group

Generation capacity: 661 MW

Includes 10 stations, HQ in Thunder Bay

Generation (net GWh)					
2004	2003	2002	2001	2000	1999
4,852	2,982	4,755	5,018	5,017	14,228

EVERGREEN ENERGY

Evergreen Energy EcoLogo^{M}-certified

Generation capacity: 152 MW

HQ in North Bay

EcoLogo^{M}-certified Green Power generation capacity from 32 OPG stations (29 small hydro stations including 4 NEPG stations), 2 wind turbines, and 50% of Huron Wind (5 wind turbines, partnership with a consortium of Canadian companies): 134 MW (at Dec 31, 2004)

EcoLogo^{M}-certified Green Power capacity available from Power Purchase Agreements: 12 MW

Total available EcoLogo^{M}-certified Green Power capacity: 146 MW net

Generation (net GWh)					
2004	2003	2002	2001	2000	1999
709	716	671	664	610	540
47	41	42	41		
756	757	713	704		

Other Evergreen Energy Capacity

Other Evergreen Energy capacity (non-EcoLogo^{M} – Eugenia Falls hydroelectric station): 6.1 MW net

Other capacity pending EcoLogo^{M} certification in 2001, certified in 2002 (Pickering Wind GS): 1.8 MW

Generation (net GWh)					
2004	2003	2002	2001	2000	1999
23	18	24	31	29	17
			0.7		

Appendix B

Indicator	2004	2003	2002	2001	2000	1999
ENERGY GENERATION BY SOURCES (gross GWh)						
Fossil	28,921	41,235	41,632	42,100	44,500	38,000
Hydroelectric (Renewable) (excl. Evergreen Energy)	35,384	32,097	34,256	33,200	33,990	33,160
Nuclear	45,051	40,353	44,800	51,200	64,300	65,900
Evergreen Energy (includes 4 N.E. Plant Group stations, wind, power purchases)	780	774	737	736	610	540
Total Internal Energy Generated	110,135	114,459	121,425	127,236	143,400	137,600
*Evergreen previously included in Hydroelectric for 1999-2000						
ENERGY GENERATION BY SOURCE (net GWh)[1]						
Fossil	27,020	39,030	39,600	40,400	42,700	36,500
Hydroelectric (Renewable) (excl. Evergreen Energy)	35,017	31,677	33,563	33,100	33,790	33,060
Nuclear	42,158	37,700	41,900	47,800	59,800	61,400
Evergreen Energy (includes 4 N.E. Plant Group stations, wind, power purchases)	780	774	737	736	610	540
Total Internal Energy Output	104,974	109,181	115,800	122,036	136,900	131,500
*Previous SD Reports included Evergreen in Hydroelectric for 1999-2000						
ENERGY CONVERSION EFFICIENCY OF FOSSIL GENERATING STATIONS						
Total Energy Input (GWh equiv.)	82,823	118,215	118,796	118,200	123,800	102,500
Net Energy Output (GWh)	27,020	39,030	39,600	40,400	42,700	36,500
Fuel Conversion Efficiency (%)	32.6	33.0	33.3	34.2	34.5	35.6
OPG INTERNAL ENERGY EFFICIENCY						
Gross Generation (GWh)	110,135	114,459	121,425	127,200	143,300	137,600
Net Generation (GWh)	104,974	109,181	115,800	122,000	136,900	131,500
Generation Energy Efficiency (%)	95.31	95.39	95.37	95.91	95.53	95.57
Internal Energy Saving – Cumulative since 1994 (GWh)	2,890	2,783	2,443	2,370	2,133	1,897
Avoided CO_2, NO and SO_2 (tonnes)	2,913,547	2,582,214	2,276,437	2,182,272	1,932,541	1,680,192
$ Value of Energy Savings @ 4.3 cents/kWh market clearing rate	124,279,030	119,660,400	105,049,000			
Annual Incremental Energy Saving (% of internal energy use)	2.1	6.4	1.3			
Annual Incremental Energy Saving (GWh)	107.4	339.8				

Appendix B

Indicator	2004	2003	2002	2001	2000	1999
ATMOSPHERIC EMISSIONS – FOSSIL						
Total Gross Annual CO_2 Emissions (tonnes)	27,094,600	36,498,700	36,710,600	37,000,000	38,500,000	32,100,000
Total Gross Annual SO_2 Emissions (tonnes)	116,912	157,805	147,640	148,977	164,100	142,100
Total Gross Annual NO Emissions (tonnes)	26,044	39,006	42,285	44,620	50,500	51,400
EMISSION RATES[2] – FOSSIL						
CO_2 Emissions (tonnes/GWh net)	1,002	935	927	916	901	880
SO_2 Emissions (tonnes/GWh net)	4.33	4.04	3.73	3.69	3.84	3.9
NO Emissions (tonnes/GWh net, as NO)	0.96	1.00	1.07	1.1	1.18	1.41
ATMOSPHERIC EMISSIONS – NUCLEAR						
Total Gross Annual CO_2 Emissions (tonnes)	7,247	15,961	9,800	56,800	121,600	147,200
Total Gross Annual SO_2 Emissions (tonnes)	20	3	12	400	914	299
Total Gross Annual NO Emissions (tonnes, as NO)	94	82	36	100	144	204
ATMOSPHERIC EMISSIONS – OPG						
Total Gross Annual CO_2 Emissions (tonnes)	27,084,647	36,514,661	36,720,400	37,057,000	38,622,000	32,247,000
Total Gross Annual SO_2 Emissions (tonnes)	116,932	157,808	147,652	149,400	165,000	142,400
Total Gross Annual NO Emissions (tonnes, as NO)	26,138	39,088	42,321	44,700	50,700	51,600
EMISSION RATES[2] – TOTAL OPG						
CO_2 Emissions (tonnes/GWh net)	258	334	317	304	282	245
SO_2 Emissions (tonnes/GWh net)	1.11	1.45	1.28	1.23	1.21	1.08
NO Emissions (tonnes/GWh net, as NO)	0.25	0.36	0.37	0.37	0.37	0.39
NUMBER OF REPORTABLE SPILLS						
Category A Spills	0	0	0	0	0	0
Category B Spills	1	3	1	0	1	0
Category C Spills	14	18	26	18	28	43

Indicator	2004	2003	2002	2001	2000	1999
PCB MANAGEMENT (tonnes)						
High Level PCB material in storage	2	2	4	21	65.5	39.9
High Level PCB materials sent for destruction	135	99	113	189	137	202
Estimated inventory of High-Level PCB material in service*	1,145	1,304	1,424	1,542*	1,660	1,789
Low-Level PCB materials in storage	0	6	5	7	3.5	19.4
Low-Level PCB material sent for destruction	38	9	8	3	11.5	8.2
Estimated inventory of Low-Level PCB material in service	4	4	6	1	2.9	3.1
*Includes in-service high-level PCB equipment at Bruce Power						
RADIOACTIVE WASTE MANAGEMENT						
Used fuel – annual production (tonnes of uranium)	1,216	1,022	969	800	1,005	1,071
Used fuel in Storage (tonnes of uranium)	29,667	28,451	27,429	26,460	25,657	24,520
Low & Intermediate Radioactive Waste produced (m^3)	4,651	4,059	4,817	5,299	4,774	4,613
Low & Intermediate Radioactive Waste stored (m^3)	1,979	3,481	1,680	1,817	1,637	1,582
UTILIZATION OF SOLID COMBUSTION BY-PRODUCTS						
Total Ash and Gypsum Produced (tonnes)	950,045	1,468,310	1,550,063	1,620,000	1,808,700	1,466,300
Total Ash & Gypsum Recycled (tonnes)	865,624	824,398	807,560	799,000	762,000	643,200
Diversion Rate (%)	91	56	52			
HAZARDOUS WASTE GENERATION						
Solids (tonnes)	645	220	225	290	397	126
Liquids (kilolitres)	2,313	4,488	6,100	7,941*	2,659	2,810
*Volume increase due to boiler cleaning at Pickering and disposal of water treatment wastes and resin at Darlington.						
WATER USE (million m^3)						
Turbine flows – hydroelectric stations (total flow)	486,901	420,206	447,574	433,772	441,862	422,916
Cooling and service water use (non-consumptive)	13,716	13,473	13,852	13,478	13,733	12,446

(1) Net generation = gross generation minus total internal energy use (energy produced by and consumed by the generation units plus energy for common station service drawn from outside the generating station, i.e., from the electricity grid), regardless of whether or not units are connected to the grid. The emission rate (tonnes/GWh-net) = total emissions divided by the total net energy.

(2) Emission rates in Appendix B are based on "net generation".

NATIONAL POLLUTION RELEASE INVENTORY (NPRI)

NPRI Emissions: air, water and land[1] - (tonnes unless otherwise specified)	2003[2]	2002	2001	2000	1999	1998
Ammonia	34.21	22.37	28.93	30.6	44.4	55.3
Arsenic	25.27	25.15	27.13	33.9	30.6	29.6
Asbestos	0	0	0	0	11.0[3]	0
Benzo(a)anthracene	15	0.006	0.011	0.013	NR[4]	NR
Benzo(a)phenanthrene	0	0.000	0	NR	NR	NR
Benzo(a)pyrene	0	0.003	0.006	0.006	NR	NR
Benzo(b)fluoranthene	0	0.003	0.009	0.012	NR	NR
Benzo(e)pyrene	0	0.005	0.010	0.012	NR	NR
Benzo(g,h,i)perylene	0	0.003	0.010	0.014	NR	NR
Benzo(j)fluoranthene	0	0.000	0	NR	NR	NR
Benzo(k)fluoranthene	0.0 kg	0.0 kg	0.1 kg	NR	NR	NR
Cadmium	10.2 kg	NR	NR	NR	NR	NR
Chromium	84.42	121.98	129.96	167.4	118.1	92.9
Cobalt	25.55	29.07	38.8	50.3	31.9	26.1
Copper	89.99	100.2	123.37	165.6	115.3	84.7
Dibenz(a,h)anthracene	0	0	0.003	0.004	NR	NR
Dibenz(a,j)acridine	0	0.001	0	0.019	NR	NR
Dibenzo(a,i)pyrene	0	0	0.001	0.001	NR	NR
7H-Dibenzo(c,g)carbazole	0	0	0	0.028	NR	NR
Fluoranthene	0.018	0.008	0.011	0.012	NR	NR
HCFC-22	0	0.81	NR	NR	NR	NR
Hexachlorobenzene	33.39 grams	3.92 grams	185.85 grams	884.1 grams	NR	NR
Hydrazine	0.98	0.85	0.91	1.18	1.9	1.9
Hydrochloric Acid	4871.07	9,231.04	8,902.54	9,728.3	7,037.7	6,709.6
Hydrogen Fluoride	538.65	551.19	520.1	597.1	339.4	295.0
Indeno(1,2,3-cd)pyrene	0	0	0.002	0.003	NR	NR
Lead	28.15	42.53	42.64	48.6	35.6	26.0
Manganese	147.98	159.66	172.46	211.7	142.3	157.9
Mercury	883 kg	896 kg	821.08 kg	836.1 kg	NR	NR
Nickel	55.82	81.77	89.18	103.9	74.7	64.0
n-Hexane	0	24.56	NR	NR	NR	NR

Appendix B

NPRI Emissions: air, water and land - (tonnes unless otherwise specified)	2003	2002	2001	2000	1999	1998
Perylene	5 kg	0	1 kg	NR	NR	NR
Phenanthrene	0.132	0.067	0.098	0.110	NR	NR
Polychlorinated dibenzo-p-dioxins + dibenzofurans	1.31 g TEQ[5]	1.49 g TEQ[5]	1.65 g TEQ[5]	1.24 g TEQ[5]	NR	NR
Pyrene	0.022	0.011	0.014	0.015	NR	NR
Selenium	15.26	20.79	19.72	16.0	12.1	9.4
Sulphuric Acid	728.44	698.93	795.2	949.9	794.7	863.9
Vanadium	149.46	214.15	196.76	NR	NR	NR
Zinc	71.94	132.17	99.86	109.9	76.8	81.9

Criteria Air Contaminants (tonnes)	2003	2002	2001	2000	1999	1998
Carbon Monoxide	13263.45	11755.19	NR	NR	NR	NR
Oxides of Nitrogen (as NO_2)	59159.19	66245.19	NR	NR	NR	NR
PM – Total Particulate Matter	12130.13	12479.9	NR	NR	NR	NR
PM10 – Particulate Matter < 10 μ[6]	8090.62	8341.12	NR	NR	NR	NR
PM2.5 – Particulate Matter < 2.5 μ[6]	3308.87	3370.92	NR	NR	NR	NR
Sulphur Dioxide	157805.7	147254.4	NR	NR	NR	NR
Volatile Organic Compounds (VOCs)	537.09	557.36	NR	NR	NR	NR

(1) For detailed information on the breakdown of OPG's NPRI data by emissions to air, water, and land please visit the NPRI web site at http://www.ec.gc.ca/pdb/npri/npri_home_e.cfm
(2) Year 2004 data was not available at the time of printing.
(3) Asbestos removed from service for disposal.
(4) NR = not reported in given year
(5) g TEQ = grams Toxic Equivalent
(6) μ = microns (particle diameter)

The Sustainable Development Policy

Policy Statement

Ontario Power Generation is committed to becoming a sustainable energy development company. We will work towards this goal by applying the principles of sustainable development to the generation and sale of electricity and related energy products and services. Enhanced environmental performance and increased competitiveness will be achieved through continual improvement in:

- Ecosystem protection,
- Energy and resource use efficiency,
- Pollution prevention, and
- Community relations.

Requirements

OPG will:

- Meet all legislative requirements and voluntary environmental commitments, with the objective of moving beyond compliance.
- Maintain environmental management systems consistent with the International Organization for Standardization (ISO) 14001 Environmental Management specification.
- Integrate environmental and social factors into our planning, decision-making and business practices.
- Apply the precautionary principle to assess the human health risks and environmental damage resulting from our operations, and any potential risks and impacts from new technologies and processes, even where scientific consensus has not yet established the level of risk or damage. Implement cost-effective mitigation measures for impacts that cannot be avoided.
- Develop the use of renewable energy and energy efficient technologies.
- Educate, encourage and empower employees to conduct their activities in an environmentally-responsible and sustainable manner.
- Measure and communicate our progress towards achieving sustainable development.

OPG management is accountable for the implementation of this policy.

The Executive Vice President and Corporate Secretary is accountable for monitoring and reporting progress in implementing this policy on behalf of the President and CEO.

Board of Directors

Date: January 31, 2000

(1) Sustainable development is defined as "development which meets the needs of present generations without compromising the ability of future generations to meet their own needs." (World Commission on Environment and Development, 1987)

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